

11729.1 contg

TTAGAGAGGCACAGAAGGAAGAAGAGTTAAAAGCAGCAAAGCCGGGTTTTTTTGTGTTTGT
TTTGTGTTTGTGTTTGTGTTTGTGAGATGGAGTCTCACTCTGTTGCCCAAGCTGGAGTACAACGGCA
TGATCTCAGCTCGCTGCAACCTCCGCCTCCACGTTCAAGTGATTCTCCTGCCTCAGCCTCC
CAAGTAGCTGGGATTACAGGCGCCCCGCCACCACGCTCAGCTAATTTTTTTGTATTTTTAGT
AGAGACAGGGTTTACCAGGTTGGCCAGGCTGCTCTTGAACCTCCTGACCTCAGGTGATCCA
CCCGCCTCGGCCTCCCAAAGTGCTGGGATTACAGGCGTGAGCCACCACGCCCCGGCCCCCAA
AGCTGTTTCTTTGTCTTTAGCGTAAAGCTCTCCTGCCATGCAGTATCTACATAACTGACGT
GACTGCCAGCAAGCTCAGTCACTCCGTGGTC

11729-45.21.21.cons1

TAGGATGTGTTGGACCCTCTGTGTCAAAAAAACCTCACAAAGAATCCCCTGCTCATTACA
GAAGAAGATGCATTTAAAATATGGGTTATTTTCACTTTTTATCTGAGGACAAGTATCCAT
TAATTATTGTGTCAGAAGAGATTGAATACCTGCTTAAGAAGCTTACAGAAGCTATGGGAG
GAGGTTGGCAGCAAGAACAATTTGAACATTATAAAATCACTTTGATGACAGTAAAAATG
GCCTTTCTGCATGGGAACCTATTGAGCTTATTGGAAATGGACAGTTTAGCAAAGGCATGGA
CCGGCAGACTGTGTCTATGGCAATTAATGAAGTCTTTAATGAACCTATATTAGATGTGTTA
AAGCAGGGTTACATGATGAAAAAGGGCCACAGACGGAAGAACTGGACTGAAAGATGGTT
TGTAATAAACCAACATAATTTCTTACTATGTGAGTGAGGATCTGAAGGATAAGAAAGG
AGACATTCTCTTGATGAAAAATGCTGTGTAGAGTCCTTGCCTGACAAAGATGGAAA

11729-45.21.21.cons2

TTAGAGAGGCACAGAAGGAAGAAGAGTTAAAAGCAGCAAAGCCGGGTTTTTTTGTGTTTGT
TTTGTGTTTGTGTTTGTGTTTGTGAGATGGAGTCTCACTCTGTTGCCCAAGCTGGAGTACAACGGCA
TGATCTCAGCTCGCTGCAACCTCCGCCTCCACGTTCAAGTGATTCTCCTGCCTCAGCCTCC
CAAGTAGCTGGGATTACAGGCGCCCCGCCACCACGCTCAGCTAATTTTTTTGTATTTTTAGT
AGAGACAGGGTTTACCAGGTTGGCCAGGCTGCTCTTGAACCTCCTGACCTCAGGTGATCCA
CCCGCCTCGGCCTCCCAAAGTGCTGGGATTACAGGCGTGAGCCACCACGCCCCGGCCCCCAA
AGCTGTTTCTTTGTCTTTAGCGTAAAGCTCTCCTGCCATGCAGTATCTACATAACTGACGT
GACTGCCAGCAAGCTCAGTCACTCCGTGGTC

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TCTTTTTCTTTTCGATTTCTTTCAATTTGTACGTTTGATTTTATGAAGTTGTTCAAGGGCTAA
CTGCTGTGTATTATAGCTTTCTCTGAGTTCCTTCAGCTGATTGTTAAATGAATCCATTTCTG
AGAGCTTAGATGCAGTTTCTTTTTCAAGAGCATCTAATTGTTCTTTAAGTCTTTGGCATAAT
TCTTCCTTTTCTGATGACTTTTATGAAGTAACTGATCCCTGAATCAGGTGTGTTACTGAG
CTGCATGTTTTTAATTCCTTTCGTTTAATAGCTGCTTCTCAGGGACCAGATAGATAAGCTTAT
TTTGATAATTCCTAAGCTCTTGTGAAGTTGTTTGATTCCATAATTTCCAGGTCACACTGT
TTATCCAAAACCTCTAGCTCAGTCTTTTGTGTTTGCTTTCTGATTTGGACATCTTGTAGTCTG
CCTGAGATCTGCTGATGXTTTCATTCACTGCTTCCAGTTCAGGTGGAGACTTXXCTTCT
GGAGCTCAGCCTGACAATGCCTTCTTGXTCCCT

11731.2contig

AGCCAGATGGCTGAGAGCTGCAAGAAGAAGTCAGGATCATGATGGCTCAGTTTCCACAG
CGATGAATGGAGGGCCAAATATGTGGGCTATTACATCTGAAGAACGTACTAAGCATGATA
AACAGTTTGATAACCTCAAACCTTCAGGAGGTTACATAACAGGTGATCAAGCCCGTACTTT
TTTCCTACAGTCAGGTCTGCCGGCCCCGGTTTTAGCTGAAATATGGGCCTTATCAGATCTG
AACAAGGATGGGAAGATGGACCAGCAAGAGTTCTCTATAGCTATGAAACTCATCAAGTTA
AAGTTGCAGGGCCAACAGCTGCCTGTAGTCCTCCCTCCTATCATGAAACAACCCCTATGT
TCTCTCCACTAATCTCTGCTCGTTTTGGGATGGGAAGCATGCCCAATCTGTCCATTATCAG
CCATTGCCTCCAGTTGCACCTATAGCAACACCCTTGTCTTCTGCTACTTCAGGGACCAGTAT
TCCTCCCCTAATGATGCCTGCTCCCCTAGTGCCTTCTGTAGTA

11734.1contig

AATAGATTTAATGCAGAGTGTCAACTTCAATTGATTGATAGTGGCTGCCTAGAGTGCTGTG
TTGAGTAGGTTTCTGAGGATGCACCCTGGCTTGAAGAGAAAGACTGGCAGGATTAACAAT
ATCTAAATCTCACTTGTAGGAGAAACCACAGGCACCAGAGCTGCCACTGGTGCTGGCAC
CAGCTCCACCAAGGCCAGCGAAGAGCCCAAATGTGAGAGTGGCGGTCAGGCTGGCACCAG
CACTGAAGCCACCCTGGTGCTGGCACTGGCACTGGCACTGTTATTGGTACTGGTACTGGC
ACCAGTGCTGGCACTGCCACTCTCTGGGCTTTGGCTTTAGCTTCTGCTCCCGCTGGATCC
GGGCTTTGGCCCAGGGTCCGATATCAGCTTCGTCCCAAGTGCAGGGCCCGGCAGCATTCTC
CGAGCCGAGCCCAATGCCCATTGAGCTCTAATCTCGGCCCTAGCCTTGGCTTCAGCTGCA
GCCTCAGCTGCAGCCTTCAAATCCGCTTCCATCGCCTCTCGGTAC

11734.2contig

GCCAAGAAAGCCCCGAAAGGTGAAGCATCTGGATGGGGAAGAGGATGGCAGCAGTGATCA
GAGTCAGGCTTCTGGAACACAGGTGGCCGAAGGGTCTCAAAGGCCCTAATGGCCTCAAT
GGCCCGCAGGGCTTCAAGGGGTCCCATAGCCTTTTGGGCCCGCAGGGCATCAAGGACTCG
GTTGGCTGCTTGGGCCCGGAGAGCCTTGCTCTCCCTGAGATCACCTAAAGCCCGTAGGGGC
AAGGCTCGCCGTAGAGCTGCCAAGCTCCAGTCATCCCAAGAGCCTGAAGCACCACCACCT
CGGGATGTGGCCCTTTTGAAGGGAGGGCAAATGATTTGGTGAAGTACCTTTTGGCTAAAG
ACCAGACGAAGATTCCCATCAAGCGCTCGGACATGCTGAAGGACATCATCAAAGAATACA
CTGATGTGTACCCGAAATCATTGAACGAGCAGGCTATTCTTGGAGAAGGTATTTGGGAT
TCAATTGAAGGAAATTGATAAGAATGACCACTTGATACATTCTTCTCAGC

11736.1contg

GAGGTCTCACTATGTTGCCAGGCTGTTCTTGAACCTCTGGGATCAAGCAATCCACCCATG
TTGGTCTCCAAAAGTGCTGGGATCATAGGCGTGAGCCACCTACCCAGCCACCAATTTTCA
ATCAGGAAGACTTTTTCTTCTTCAAGAAGTGAAGGGTTTCCAGAGTATAGCTACACTATT
GCTTGCCTGAGGGTGACTACAAAATTGCTTGCTAAAAGGTTAGGATGGGTAAAGAATTAG
ATTTTCTGAATGCAAAAATAAAATGTGAACCTAATGAACCTTTAGGTAATACATATTCATAAA
ATAATTATTCACATATTTCTGATTTATCACAGAAATAATGTATGAAATGCTTTGAGTTTCT
TGGAGTAAACTCCATTACTCATCCCAAGAAACCATATTATAAGTATCACTGATAATAAGAA
CAACAGGACCTTGTCAAAATTCTGGATAAGAGAAATAGTCTCTGGGTGTTTGXTCTTAAT
TGATAAAATTTACTTGTCCATCTTTTAGTTCAGAAATCACAAAA

FIG. 1B

11736.2contig

AAGCGGAAATGAGAAAGGAGGGGAAAAATCATGTGGTATTGAGCGGAAAACTGCTGGATGA
CAGGGCTCAGTCCTGTTGGAGAAGCTCTGGGTGGTGTGTAGAACAGGGCCACTCACAGTG
GGGTGCACAGACCAGCACGGCTCTGTGACCTGTTTGTACAGGTCCATGATGAGGTAAAC
AATACACTGAGTATAAGGGTTGGTTTAGAAAACCTTACAGCAATTTGACAAAGTAATCTTC
TGTGCAGTGAATCTAAGAAAAAAATTTGGGGCTGTATTTGTATGTTCCCTTTTTTTCATTTTCAT
GTTCTGAGTTACCTATTTTTATTGCATTTTACAAAAGCATCCTTCCATGAAGGACCGGAAGT
TAAAAACAAAGCAGGTCCTTTATCACAGCACTGTCGTAGAACACAGTTCAGAGTTATCCAC
CCAAGGAGCCAGGGAGCTGGGCTAAACCAAAGAATTTTGCTTTTGGTTAATCATCAGGTA
CTTGAGTTGGAATTGTTTAAATCCCATCATTACCAGGCTGGAXGTG

11739-1&2

CCGCGGCTCCTGTCCAGACCCTGACCCTCCCTCCCAAGGCTCAACCGTCCCCCAACAACCG
CCAGCCTTGACTGATGTGCGGCTGCGAGAGCCTGTGCTTAAGTAAGAATCAGGCCTTATTG
GAGACATTCAAGCAAAGGTTGGACAACACTACTTTTCCAGAACAGAAAGGAACTCATGCAT
CAGAAAAGGTGACTAATAAAGGTACCAGAAGAATATGGCTGCACAAATACCAGAATCTGA
TCAGATAAAACAGTTTAAGGAATTTCTGGGGACCTACAATAAACTTACAGAGACCTGCTTT
TTGGACTGTGTTAGAGACTTCACAACAAGAGAAGTAAAACCTGAAGAGACCACCTGTTCA
GAACATTGCTTACAGAAATATTTAAAAATGACACAAAGAATATCCATGAGATTTTCAGGAA
TATCATATTCAGCAGAATGAAGCCCTGGCAGCCAAAGCAGGACTCCTTGGCCAACCACGA
TAGAGAAGTCCTGATGGATGAACTTTGTATGAAAGATTGCCAACAGCTGCTTTATTGGAAG
TGAGGACTCATCTGATAGAATCCCCTGAAAGCAGTAGCCACCATGTTCAACCATCTGTCAT
GACTGTTTGGCAAATGGAACCGCTGGAGAAACAAAATTGCTATTTACCAGGAATAATCA
CAATAGAAGGTCTTATTGTTTCAGTGAATAATAAGATGCAACATTTGTTGAGGCCTTATGA
TTCAGCAGCTTGGTCACTTGATTAGAAAAATAAACCATTTGTTCTTCAATTGTGACTGTTA
ATTTTAAAGCAACTTATGTGTTTCGATCATGTATGAGATAGAAAAATTTTATTACTCAAAG
TAAAATAAATGGA

11740.1.contig

GAAAAAAAATATAAACACACTTTTTCGAAAACGGTGGCCCTAAAAGAGGAAAAGAATTT
CACCAATATAAATCCAATTTTATGAAAACCTGACAATTTAATCCAAGAATCACTTTTGTAAG
TGAAGCTAGCAAGTGATGATATGATAAAATAAACGTGGAGGAAATAAAAACACAAGACTT
GGCATAAGATATATCCACTTTTGATATTAACCTTGTAAGCATATTCTTCGACAAATTTGTG
AAAGCGTTCCTGATCTTGCTTGTCTCCATTTCAAATAAGGAGGCATATCACATCCCAAGA
GTAACAGAAAAAGAAAAAGACATTTTTCATTTTGTAGATGAACCAAAGACACAAAACAA
AACGAACAAAGTGTGATGTCTAATTCTAGCCTCTGAAATAAACCTTGAACATCTCTACAA
GGCACCGTGATTTTGTAAATCTAACCTGAAGAAATGTGATGACTTTTGTGGACATGAAAA
TCAGATGAGAAAACCTGTGGTCTTTCCAAAGCCTGAACTCCCCTGAAAACCTTTGCA

11766.1.contig

CTGGGATCATTTCTCTTGATGTCATAAAAGACTCTTCTTCTCCTCTTCATCCTCTTCTTCAT
CCTCTTCTGTACAGTGCTGCCGGGTACAACGGCTATCTTTGTCTTTATCCTGAGATGAAGAT
GATGCTTCTGTTTCTCCTACCATAACTGAAGAAATTCGCTGGAAGTCGTTTACTGGCTGT
TTCTCTGACTTCACCTTCTTTGTCAAACCTGAGTCTTTTACCTCATGCCCCCTAGCTTCCAC
AGCATCTTCATCTGGATGTTTATTTTCAAAGGGCTCACTGAGGAAACTTCTGATTCAGAG
GTCGAAGAGTCACTGTGATTTTCTCCTCATTTTGCTGCAAATTTGCCTCTTTGCTGTCTGT
GCTCTCAGGCAACCCATTTGTTGTCATGGGGGGCTGACAAAGAAACCTTTGGTCGATTAAGT
GGCCTGGGTGTCACAGGCCATTTATATTAGACCTCTCAGTATAGCTTGGTGAATTTCCAG
GAAACATAACACCATTTCGATTTAAACTATTGGAATTGGTTTT

11766.2.contig

GAGGGTTGGTGGTAGCGGCTTGGGGAGGTGCTCGCTCTGTGGTCTTGCTCTCTCGCACGC
TTCCCCCGGCTCCCTTCGTTTCCCCCCCCCGGTGCGCTGCGTGCCGAGTGTGTGCGAGGG
AGGGGGAGGGCGTCGGGGGGGTGGGGGGAGGCGTTCGGGTCCCCAAGAGACCCGCGGAG
GGAGGCGGAGGCTGTGAGGGACTCCGGGAAGCCATGGACGTCGAGAGGCTCCAGGAGGC
GCTGAAAGATTTTGAAGAAGGGGGGAAAAAGGAAGTTTGTCTGTCTGGATCAGTTTCT
TTGTCTGTAGCCAAGACTGGAGAAACAATGATTCAGTGGTCCCAATTTAAAGGCTATTTT
ATTTTCAAACCTGGAGAAAGTGATGGATGATTTCAGAACTTCAGCTCCTGAGCCAAGAGGTC
CTCCAACCCTAATGTCGA

11773.2.contig

AAGCAGGCGGCTCCCGCGCTCGCAGGGCCGTGCCACCTGCCCGCCCCGCGCTCGCTCGCT
CGCCCCGCGCGCCGCGCTGCCGACCGCCAGCATGCTGCCGAGAGTGGGCTGCCCCGCGCT
GCCGXTGCCG

11775-1&2

ATCTCTTGATGCCAAATATTTAATATAAAATCTTTGAAACAAGTTCAGATGAAATAAAAAT
CAAAGTTTGCAAAAACGTGAAGATTAACCTAATTGTCAAATATTCCTCATTGCCCAAATC
AGTATTTTTTTTATTTCTATGCAAAAGTATGCCTTCAAACCTGCTTAAATGATATATGATATG
ATACACAAACCAGTTTTCAAATAGTAAAGCCAGTCATCTTGCAATTGTAAGAAATAGGTA
AAAGATTATAAGACACCTTACACACACACACACACACACACGTTGTCACGCCAATGAC
AAAAACAATTTGGCCTCTCCTAAAATAAGAACATGAAGACCCTTAATTGCTGCCAGGAG
GGAACACTGTGTCACCCCTCCCTACAATCCAGGTAGTTTCTTTAATCCAATAGCAAATCT
GGGCATATTTGAGAGGAGTGATTCTGACAGCCACGTTGAAATCCTGTGGGGAACCATTCAT
GTCCACCCACTGGTGCCCTGAAAAAATGCCAATAATTTTTGCTCCCACTTCTGCTGCTGTC
TCTTCCACATCCTCACATAGACCCAGACCCGCTGGCCCCCTGGCTGGGCATCGCATTGCTG
GTAGAGCAAGTCATAGGTCTCGTCTTTGACGTCACAGAAGCGATACACCAAATTGCCTGGT
CGGTCATTGTCATAACCAGAGA

11777.1&2.cons

CAGACGGGGTTTCACTATGTTGGCTAGGCTGGTCTTGAACCTCCTGACTTCAGGTGATCTGC
CTGCCTTGGCCTCCCAAAGTGCTGGGATTACAGGCATAAGCCACTGCGCCCGGCTGATCTG
ATGGTTTCATAAGGCTTTTCCCCCTTTTGCTCAGCACTTCTCCTTCTGCGCCATGTGAAG
AAGGACATGTTTGCTTCCCCTTCCACCACGATTGTAAGTTGTTTCTGAGGCCTCCCCGGCC
ATGCTGAACTGTGAGTCAATTAACCTCTTTCTTTATAAATTATCCAGTTTGGGTATGTC
TTTATTAGTAGAATGAGAACAGACTAATACAACCCTTAAAGGAGACTGACGGAGAGGATT
CTTCTGGATCCCAGCACTTCTCTGAATGCTACTGACATTCTTCTTGAGGACTTTAACTG
GGAGATAGAAAACAGATTCCATGGCTCAGCAGCCTGAGAGCAGGGAGGGAGCCAAGCTA
TAGATGACATGGGCAGCCTCCCCTGAGGCCAGGTGTGGCCGAACCTGGGCAGTGCTGCAC
CCACCCACCAGGGCCAAGTCCTGTCTTGGAGAGCCAAGCCTCAATCACTGCTAGCCTCA
AGTGTCCCCAAGCCACAGTGGCTAGGGGGACTCAGGGAACAGTTCCCAGTCTGCCCTACTT
CTCTTACCTTTACCCCTCATACCTCCAAAGTAGACCATGTTTCATGAGGTCCAAAGG

11779.2.contig

AAGCGAGGAAGCCACTGCGGCTCCTGGCTGAAAAGCGGCGCCAGGCTCGGGAACAGAGG
GAACCGGAAGAAGAGGAGCGGAAGCTGCAGGCTGAAAGGGACAAGCGAATGCGAGAGG
AGCAGCTGGCCCGGAGGCTGAAGCCCGGGCTGAACGTGAGGCCGAGGCGCGGAGACGG
GAGGAGCAGGAGGCTCGAGAGAAGGCGCAGGCTGAGCAGGAGGAGCAGGAGCGACTGCA
GAAGCAGAAAGAGGAAGCCGAAGCCCGGTCCCGGGAAGAAGCTGAGCGCCAGCGCCAGG
AGCGGGAAAAGCACTTTCAGAAGGAGGAACAGGAGAGACAAGAGCGAAGAAAGCGGCTG
GAGGAGATAATGAAGAGGACTCGGAAATCAGAAGCCGCCGAAACCAAGAAGCAGGATGC
AAAGGAGACCGCAGCTAACAATTCCGGCCCAGACCCTTGTGAAAGCTGTAGAGACTCGGC
CCTCTGGGCTTCCAGAAAGGATTCTATTGCAGAAAGGAAGGAGCTXGGCCCCCAXGGA

11781 & 37.cons

CTCTGTGGAAAACCTGATGAGGAATGAATTTACCATTACCCATGTTCTCATCCCCAAGCAAA
GTGCTGGGTCTGATTACTGCAACACAGAGAACGAAGAAGAACTTTTCTCATACAGGATC
AGCAGGGCCTCATCACTGGGCTGGATTCACTACCCACACAGACCGCGTTTCTCTC
CAGTGTGACCTACACACTCACTGCTCTTACCAGATGATGTTGCCAGAGTCAGTAGCCATT
GTTTGCTCCCCCAAGTTCCAGGAACTGGATTCTTTAACTAACTGACCATGGACTAGAGG
AGATTTCTTCTGTGCGCCAGAAAGGATTTTCATCCACACAGCAAGGATCCACCTCTGTTCTG
TAGCTGCAGCCACGTGACTGTTGTGGACAGAGCAGTGACCATCACAGACCTTCGATGAGC
GTTTGAGTCCAACACCTTCCAAGAACAACAAAACCATATCAGTGTACTGTAGCCCCCTTAAT
TTAAGCTTTCTAGAAAGCTTTGGAAGTTTTTGTAGATAGTAGAAAGGGGGGCATCACXTGA
GAAAGAGCTGATTTTGTATTTTCAGGTTTGAAGAAATAACTGAACATATTTTTTAGGCAA
GTCAGAAAGAGAACATGGTCACCCAAAAGCAACTGTAACCTCAGAAATTAAGTTACTCAGA
AATTAAGTAGCTCAGAAATTAAGAAAGAAATGGTATAATGAACCCCCATATACCTTCCTTC
TGGATTACCAATTGTAAACATTTTTTCTCTCAGCTATCCTTCTAATTTCTCTCTAATTTT
ATTTGTTTATTTACCTCTGGGCTCAATAAGGGCATCTGTGCAGAAATTTGGAAGCCAT
TTAGAAAATCTTTTGATTTTCTGTGTTTATGGCAATATGAATGGAGCTTATTACTGGG
GTGAGGGACAGCTTACTCCATTTGACCAGATTGTTTGGCTAACACATCCCGAAGAATGATT
TTGTCAGGAATTATTGTTATTTAATAAATATTTTCAGGATATTTTCTCTACAATAAAGTAA
CAAT

FIG. 1E

11781-76-87-37

CTCTGTGGAAAACCTGATGAGGAATGAATTTACCATTACCCATGTTCTCATCCCCAAGCAAA
GTGCTGGGTCTGATTACTGCAACACAGAGAACGAAGAAGAACTTTTCCTCATACAGGATC
AGCAGGGCCTCATCACACTGGGCTGGATTCTACTCACCACACAGACCGGCTTTCTCTC
CAGTGTGACCTACACACTACTGCTCTTACCAGATGATGTTGCCAGAGTCAGTAGCCATT
GTTTGCTCCCCCAAGTTCAGGAACTGGATTCTTTAAACTAACTGACCATGGACTAGAGG
AGATTCTTCTCTGTCGCCAGAAAGGATTTTCATCCACACAGCAAGGATCCACCTCTGTTCTG
TAGCTGCAGCCACGTGACTGTTGTGGACAGAGCAGTGACCATCACAGACCTTCGATGAGC
GTTTGAGTCCAACACCTTCCAAGAACAACAAAACCATATCAGTGTACTGTAGCCCCCTTAAT
TTAAGCTTTCTAGAAAGCTTTGGAAGTTTTGTAGATAGTAGAAAGGGGGGCATCACCTGA
GAAAGAGCTGATTTTGTATTTTCAAGTTTGAAGAAGAAATAACTGAACATATTTTTTAGGCAA
GTCAGAAAGAGAACATGGTCACCCAAAAGCAACTGTAACCTCAGAAATTAAGTTACTCAG
AATTAAGTAGCTCAGAAATTAAGAAAGAATGGTATAATGAACCCCATATACCCTTCCTTC
TGGATTCCACCAATTGTTAACATTTTTTCTCTCAGCTATCCTTCTAATTTCTCTCTAATTTT
AATTTGTTTATATTTACCTCTGGGCTCAATAAGGGCATCTGTGCAGAAATTTGGAAGCCAT
TTAGAAAATCTTTTGGATTTTCTGTGGTTTATGGCAATATGAATGGAGCTTATTACTGGG
GTGAGGGACAGCTTACTCCATTTGACCAGATTGTTTGGCTAACACATCCCGAAGAATGATT
TTGTCAGGAATTATTGTTATTTAATAAATATTTTCAAGGATATTTTCTCTACAATAAAGTAA
CAATTA

11784-1 & 2

GGACGACAAGGCCATGGCGATATCGGATCCGAATTCAAGCCTTTGGAATTAATAAACCT
GGAACAGGGGAAGGTGAAAGTTGGAGTGAGATGTCTTCCATATCTATACCTTTGTGCACAG
TGAATGGGAAGCTGTTTGGGTTTAGGGCATCTTAGAGTTGATTGATGGAAAAAGCAGACAG
GAAGTGGTGGGAGGTCAAGTGGGGAAGTTGGTGAATGTGGAATAACTTACCTTTGTGCTC
CACTTAAACCAGATGTGTTGCAGCTTTCTGACATGCAAGGATCTACTTTAATTCCACACT
CTCATTAATAAATTGAATAAAAGGGAATGTTTTGGCACCTGATATAATCTGCCAGGCTATG
TGACAGTAGGAAGGAATGGTTTCCCCTAACAAAGCCCAATGCACTGGTCTGACTTTATAAAT
TATTTAATAAAATGAACTATTATC

11785.2.contig

GGCAGTGACATTCACCATCATGGGAACCACTTCCCTTTTCTTCAGGATTCTCTGTAGTGG
AAGAGAGCACCCAGTGTTGGGCTGAAAACATCTGAAAGTAGGGAGAAGAACCTAAAATA
ATCAGTATCTCAGAGGGCTCTAAGGTGCCAAGAAGTCTCACTGGACATTTAAGTGCCAAC
AAAGGCATACTTTCCGAATCGCCAAGTCAAAACTTTCTAACTTCTGTCTCTCTCAGAGACA
AGTGAGACTCAAGAGTCTACTGCTTTAGTGGCAACTACAGAAAACCTGGTGTACCCAGAA
AAACAGGAGCAATTAGAAATGGTTCCAATATTTCAAAGCTCCGCAAACAGGATGTGCTTT
CCTTTGCCCATTTAGGGTTTCTTCTCTTCTCTTTCTTTATTAACCACT

11718-1&2 cons

TGCGCTGAAAACAACGGCCTCCTTTACTGTAAAAATGCAGCCACAGGTGCTTAGCCGTGGG
CATCTCAACCACCAGCCTCTGTGGGGGGCAGGTGGGCGTCCCTGTGGGCCTCTGGGCCCAC
GTCCAGCCTCTGTCTCTGCCTTCCGTTCTTCGACAGTGTCCCGGCATCCCTGGTCACTTG
GTACTTGGCGTGGGCCTCCTGTGCTGCTCCAGCAGCTCCTCCAGGXGGTCGGCCCCGTTCA
CCGCAGCCTCATGTTGTGTCCGGAGGCTGCTCACGGCCTCCTCCTTCCTCGCGAGGGCTGT
CTTCACCCCTCCGGXGCACCTCCTCCAGCTCCAGCTGCTGGCGGGCCTGCAGCGTGGCCAGC
TCGGCCTTGGCCTGCCGCGTCTCCTCCTCARAGGCTGCCAGCCGGTCCTCGAACTCCTGGC
GGATCACCTGGGCCAGGTTGCTGCGCTCGCTAGAAAGCTGCTCGTTCACCGCCTGCGCATC
CTCCAGCGCCCGCTCCTTCTGCCGCACAAGGCCCTGCAGACGCAGATTCTCGCCCTCGGGCCT
CCCCAAGCTGGCCCTTCAGCTCCGAGCACCGCTCCTGAAGCTTCCGCTCCGACTGCTCCAG
CTCGGAGAGCTCGGCCTCGTACTTGTCCCGTAAGCGCTTGATGCGGCTCTCGGCAGCCTTC
TCACTCTCCTCCTTGGCCAGCGCCATGTCGGCCTCCAGCCGGTGAATGACCAGCTCAATCT
CCTTGTCCCGGCCCTTCCGGATTCTTCCCTCAGCTCCTGTTCGCGTTTACGAGCCACGCC
TCCTCCTTCTGGTGCGGCCGGCCTCCACGCCTGCCTCTCCAGCTCCAGCTGCTGCTTCAG
GGTATTCAGCTCCATCTGGCGGGCCTGCAGCGTGGCCA

13690.4

CAACTTATTACTTGAAATTATAATATAGCCTGTCCGTTTGCTGTTTCCAGGCTGTGATATAT
TTTCCTAGTGGTTTGACTTTAAAAATAAATAAGGTTTAATTTTCTCCCC

13693.1

TGCAAGTCACGGGAGTTTATTTATTTAATTTTTTTTCCCCAGATGGAGACTCTGTGCCCCAGG
CTGGAGTGCAATGGTGTGATCTTGGCTCACTGCAACCTCCACCTCCTGGGTTCAAGCGATT
CTCCTGCCACAGCCTCCCGAGTAGCTGGGATTACAGGTGCCCGCCACCACACCCAGCTAAT
TTTTATATTTTATAGTAAAGACAGGGTTTCCCCATGTTGGCCAGGCTGGTCTTGAACCTCTGA
CCTCAGGTGATCCACCTGCCTCGGCCTCCCAAAGTGTGGGATTACAGGCGTGAGCTACCC
GTGCCTGGCCAGCCACTGGAGTTTAAAGGACAGTCATGTTGGCTCCAGCCTAAGGCGGCA
TTTTCCCCCATCAGAAAGCCCGCGGCTCCTGTACCTCAAAATAGGGCACCTGTAAAGTCAG
TCAGTGAAGTCTCTGCTCTAACTGGCCACCCGGGGCCATTGGCNTCTGACACAGCCTTGCC
AGGANGCCTGCATCTGCAAAAGAAAAGTTCACCTTCCTTTCCG

13694.1

CAGAGAATCTKAGAAAGATGTCGCGTTTTCTTTTAAATGAATGAGAGAAGCCCATTGTATC
CCTGAATCATTGAGAAAAGGCGGGTGGCGACAGCGGCGACCTAGGGATCGATCTGGAG
GGACTTGGGGAGCGTGACAGAGACCTCTAGCTCGAGCGGAGGGACCTCCCGCCGGGATGC
CTGGGGAGCAGATGGACCCTACTGGAAGTCAGTTGGATTGAGATTCTCTCAGCAAGATAC
TCCTTGCTGATAATTGAAGATTCTCAGCCTGAAAGCCAGGTTCTAGAGGATGATTCTGGT
TCTCACTTCAGTATGCTATCTCGACACCTTCCTAATCTCCAGACGCACAAAGAAAATCCTG
TGTTGGATGTTGNGTCCAATCCTTGAACAAACAGCTGGAGAAGAACGAGGAGACCGGTAA
TAGTGGGTTCAATGAACATTTGAAAGAAAACCAGGTTGCAGACCCTG

FIG. 1G

13694.2

GA CTGTCTGAA CAAGGGACCTCTGACCAGAGAGCTGCAGGAGATGCAGAGTGGTGGCAG
GAGTGGAAGCCAAAGAACACCCACCTTCTCCCTTGAAGGAGTAGAGCAACCATCAGAAG
ATACTGTTTTATTGCTCTGGTCAAACAAGTCTTCTGAGTTGACAAAACCTCAGGCTCTGGT
GACTTCTGAATCTGCAGTCCACTTTCATAAGTCTTGTGCAGACAACCTGTTCTTTTGCTTC
CATAGCAGCAACAGATGCTTTGGGGCTAAAAGGCATGTCCTCTGACCTTGACGGTGGTGG
ATTTTGCTCTTTTACAACATGTACATCCTTACTGGGCTGTGCTGTCACAGGGATGTCCTTGC
TGGACTGTTCTGCTATGGGGATATCTTCGTTGGACTGTTCTTCATGCTTAATTGCAGTATTA
GCATCCACATCAGACAGCCTGGTATAACCAGAGTTGGTGGTACTGATTGTAGCTGCTCTT
TGTCACCTTCATATGGCACAAGTATTTTCTCAACATCCTGGCTCTGGGAAG

13695.1

GAAATGTATATTTAATCATTCTCTTGAACGATCAGAACTCTRAAATCAGTTTTCTATAACAR
CATGTAATACAGTCACCGTGGCTCCAAGGTCCAGGAAGGCAGTGGTTAACACATGAAGAG
TGTGGGAAGGGGGCTGGAAACAAAGTATTCTTTTCTTCAAAGCTTCATTCTCAAGGCCT
CAATTCAAGCAGTCATTGTCCTTGCTTTCAAAGTCTGTGTGTGCTTCATGGAAGGTATAT
GTTTGTGCTTAATTTGAATTGTGGCCAGGAAGGGTCTGGAGATCTAAATTCAGAGTAAG
AAAACCTGAGCTAGAACTCAGGCATTTCTCTTACAGAACTTGGCTTGACAGGGTAGAATGA
ANGGAAAGAACTTAGAAGCTCAACAAGCTGAAGATAATCCCATCAGGCATTTCCCATAG
GCCTTGCAACTCTGTTCACTGAGAGATGTTATCCTG

13695.2

AGTCTGGAGTGAGCAAACAAGAGCAAGAAACAARRAGAAGCCAAAAGCAGAAGGCTCCA
ATATGAACAAGATAAATCTATCTTCAAAGACATATTAGAAGTTGGGAAAATAATTCATGT
GAACTAGACAAGTGTTAAGAGTGATAAGTAAATGCACGTGGAGACAAGTGCATCCCC
AGATCTCAGGGACCTCCCCCTGCCTGTACCTGGGGAGTGAGAGGACAGGATAGTGCATG
TTCTTTGTCTCTGAATTTTTAGTTATATGTGCTGTAATGTTGCTCTGAGGAAGCCCCCTGGAA
AGTCTATCCCAACATATCCACATCTTATATTCCACAAATTAAGCTGTAGTATGTACCCTAA
GACGCTGCTAATTGACTGCCACTTCGCAACTCAGGGGCGGCTGCATTTTAGTAATGGGTCA
AATGATTCACTTTTTATGATGCTTCCCAAGGTGCCTTGGCTTCTCTTCCCAACTGACAAATG
CCCAAGTTGAGAAAAATGATCATAATTTTAGCATAAACCGAGCAATCGGCGACCCC

13697.1

TAGCTGTCTTCTCACTCTTATGGCAATGACCCCATATCTTAATGGATTAAGATAATGAAA
GTGTATTTCTTACACTCTGTATCTATCACCAGAAGCTGAGGTGATAGCCCGCTTGTCATTGT
CATCCATATTCTGGGACTCAGGCGGGAACCTTCTGGAATATTGCCAGGGAGCATGGCAGA
GGGGCACAGTGCATTCTGGGGGAATGCACATTGGCTCAGCCTGGGTAATGAGTGATATAC
ATTACCTCTGTTCACTCACTATTGCCCAGCACCAGTCACAAGGCCCCACCAAATACCAGAG
CCCAAGAAATGTAGTCCTGTTGATATGGTTTTGTGTGTCCCAACCCAAATCTCATCTTGA
ATTGTAAGCTCCCATAAATCCCATGTGTTGTGGGAGGGACCTGGTG

13697.2

ATCATGAGGATGTTACCAAAGGGATGGTACTAAACCATTTGTATTCGTCTGTTTTCACACT
GCTTTGAAGATACTACCTGAGACTGGGTAATTTATAAAACAAAAGAGATTTAATTGACTCAC
AGTTCTGTCATGGCTGAAGAGGCCTCAGGAACTTACAGTCATGGTGGAAGGCAAAGGAGG
AGCAAGGCATGTCTTACATGTCAGTAGGAGAGAGAGCGAGAGCAGGAGAACCTGCCACTT
ATAAACCATTCAGATCTCATAACTCCCTATCATGAGAAAAACATGGAGGAAACCACCCTC
ATGATCCAATCACCTCCCGCCAGGTCCCTCCCTCGACACGTGGGGATTATAATTCAGGATT
AGAGGGACACAGAGACAAACCATATCATCATTATGAGAAATCCACCCTCATAGTCCAAT
CAGCTCCTACCAGGCCCCACCTCCAACACTGGGGATTGCAATTCAACATGAGATTTGGATG
GGGACACAGATTCAAACCATATCATAC

13699.1&2

CATGGCCTTTCTCCTTAGAGGCCAGAGGTGCTGCCCTGGCTGGGAGTGAAGCTCCAGGCAC
TACCAGCTTTCTGATTTTCCCGTTTGGTCCATGTGAAGAGCTACCACGAGCCCCAGCCTCA
CAGTGTCCTCAAGGGCAGCTTGGTCTCTTGTCTGCAGAGGCAGGCTGGTGTGACCCT
GGGAACTTGACCCGGGAACAACAGGTGGCCCAGAGTGAGTGTGGCCTGGCCCCCTCAACCT
AGTGTCCGTCTCTCTCTCTCTGGAGCCAGTCTTGAGTTTAAAGGCATTAAGTGTTAGATA
CAAGCTCCTTGTGGCTGGAAAAACACCCCTCTGCTGATAAAGCTCAGGGGGCACTGAGGA
AGCAGAGGCCCCCTGGGGGTGCCCTCCTGAAGAGAGCGTCAGGCCATCAGCTCTGTCCCTC
TGGTGCTCCACGTCTGTCTCCTCACCCCTCCATCTCTGGGAGCAGCTGCACCTGACTGGCCAC
GCGGGGGCAGTGGAGGCACAGGCTCAGGGTGGCCGGGCTACCTGGCACCCCTATGGCTTAC
AAAGTAGAGTTGGCCCAGTTTCTTCCACCTGAGGGGAGCACTCTGACTCCTAACAGTCTT
CCTTGCCCTGCCATCATCTGGGGTGGCTGGCTGTCAAGAAAGGCCGGGCATGCTTTCTAAA
CACAGCCACAGGAGGCTTGTAGGGCATCTTCCAGGTGGGGAAACAGTCTTAGATAAGTAA
GGTGACTTGCTAAGGCCTCCAGCACCCCTTGATCTTGGAGTCTCACAGCAGACTGCATGT
SAACAACCTGGAACCGAAAACATGCCTCAGTATAAAA

13703.3

CCAGAACCTCCTTCTCTTTGGAGAATGGGGAGGCCTCTTGGAGACACAGAGGGTTTCACCT
TGGATGACCTCTAGAGAAATTGCCCAAGAAGCCACCTTCTGGTCCCAACCTGCAGACCCC
ACAGCAGTCAGTTGGTCAGGCCCTGCTGTAGAAGGTCACTTGGCTCCATTGCCTGCTTCCA
ACCAATGGGCAGGAGAGAAAGGCCTTTATTTCTCGCCCACCCATTCTCCTGTACCAGCACCT
CCGTTTTAGTCAGYGTGTCCAGCAACGGTACCGTTTACACAGTCA

13705.1

TGCATGTAGTTTTATTTATGTGTTTTSGTCTGGAAAACCAAGTGTCCCAGCAGCATGACTGA
ACATCACTCACTTCCCCTACTTGATCTACAAGGCCAACGCCGAGAGCCCAGACCAGGATTC
CAAACACACTGCACGAGAATATTGTGGATCCGCTGTCAGGTAAGTGTCCGTCACTGACCCA
RACGCTGTTACGTGGCACATGACTGTACAGTGCCACGTAACAGCACTGTACTTTTCTCCCA
TGAACAGTTACCTGCCATGTATCTACATGATTCAGAACATTTTGAACAGTTAATTCTGACA
CTTGAATAATCCCATCAAAAACCGTAAATCACTTTGATGTTTGTAAACGACAACATAGCAT
CACTTTACGACAGAATCATCTGGAAAAACAGAACAACGAATACATACATCTTAAAAAATG
CTGGGGTGGGCCAGGCACAGCTTACGCCTGTAATCCCAGCACTTTGGGAGGCTTAAGCG
GGTG

13705.2

TGGGGCGGAAAGAAGCCAAGGCCAAGGAGCTGGTGCGGCAGCTGCAGCTGGAGGCCGAG
GAGCAGAGGAAGCAGAAGAAGCGGCAGAGTGTGTGCGGCCTGCACAGATACCTTCACTTG
CTGGATGGAAATGAAAATTACCCGTGTCTTGTGGATGCAGACGGTGATGTGATTTCTTCC
CACCAATAACCAACAGTGAGAAGACAAAGGTTAAGAAAACGACTTCTGATTTGTTTTGG
AAGTAACAAGTGCCACCAGTCTGCAGATTTGCAAGGATGTCATGGATGCCCTCATTCTGAA
AATGGCAAGAAATGAAAAAGTACACTTTAGAAAATAAAGAGGAAGGATCACTCTCAGAT
ACTGAAGCCGATGCAGTCTCTGGACAACCTCCAGATCCCACAACGAATCCCAGTGCTGGA
AAGGACGGGCCCTTCTTCTGGTGGTGGAACANGTCCCGGTGGTGGATCTTGAANGGAA
CCTGAANGTGGTGTACCCCGTCCAAGGCCGACCTTGGCCAC

13707.4

TCCCGCGCTCGCAGGGCNCGTGCCACCTGCCYGTCCGCCCCGCTCGCTCGCTCGCCCCGCCG
GCCGCGCTGCCGACCGYCAGCATGCTGCCGAGAGTGGGCTGCCCCGCGCTGCCGCTGCCG
CCGCCGCGCTGCTGCCGCTGCTGCCGCTGCTGCTGCTGC

13708.1&2

GGCGGGTAGGCATGGAAGTGAAGAAGCAAGAAGCTTTCAGACTACGTGGGGAAGAAT
GAAAAAACCAAAATTATCGCCAAGATTCAGCAAAGGGGACAGGGAGCTCCAGCCCCGAGA
GCCTATTATTAGCAGTGAGGAGCAGAAGCAGCTGATGCTGTACTATCACAGAAGACAAGA
GGAGCTCAAGAGATTGGAAGAAAATGATGATGATGCCTATTTAACTCACCATGGGCGGA
TAACACTGCTTTGAAAAGACATTTTCATGGAGTGAAAGACATAAAAGTGGAGACCAAGATG
AAGTTCACCAGCTGATGACACTTCCAAAGAGATTAGCTCACCT

13709.1

TCTGAAGGTAAATGTTTCATCTAAATAGGGATAATGRATAACACCTATAGCATAGAGTTG
TTTGAGATTAAATGAGATAATACATGTAATAATTATGTGCCTGGCATAACAGCAAGATTGTTG
TTGTTGTTGATGATGATGATGATGATGATAATATTTTCTATCCCCAGTGCACAACTGCTTG
AACCTATTAGATAATCAATACATGTTTCTTGAAGTGAAGTCAATTTCCCCATGTTGTCTGAC
TGATGAAGCCCTACATTTTCTTCTAGAGGAGATGACATTTGAGCAAGATCTTAAAGAAAAT
CAGATGCCTTCACCTGACCACTGCTTGGTGATCCCATGGCACTTTGTACATCTCTCCATTAG
CTCTCATCTCACCAGCCCATCATTATTGTATGTGCTGCCTTCTGAAGCTTGCAGCTGGCTAC
CATCMGGTAGAATAAAAATCATCCTTTCATAAAATAGTGACCCTCCTTTTTTATTTGCATT
CCCAAAGCCAAGCACCGTGGGANGGTAG

13709.2

TATGAAGAAGGGAAAAGAAGATAATTTGTGAAAGAAATGGGTCCAGTTACTAGTCTTTGA
AAAGGGTCAGTCTGTAGCTCTTCTTAATGAGAATAGGCAGCTTTCAGTTGCTCAGGGTCAG
ATTTCTTAGTGGTGTATCTAATCACAGGAAACATCTGTGGTTCCTCCAGTCTCTTTCTGG
GGGACTTGGGCCCCACTTCTCATTTCAATTAATTAGAGGAAATAGAACTCAAAGTACAATTT
ACTGTTGTTTAAACAATGCCACAAAGACATGGTTGGGAGCTATTTCTTGATTTGTGTAAT
GCTGTTTTGTGTGCTCATAATGGTTCCAAAAATTGGGTGCTGGCCAAAGAGAGATACTGT
TACAGAAGCCAGCAAGAAGACCTCTGTTTCATTACACCCCCGGGGATATCAGGAATTGAC
TCCAGTGTGTGCAAATCCAGTTTGGCCTATCTTCT

13712.1&2

TGAGGGACTGATTGGTTTGCTCTCTGCTATTCAATTCCCCAAGCCCACTTGTTCTGCAGCG
TCCTCCTTCTCATTCCCTTTAGTTGTACCCTCTCTTTCATCTGAGACCTTTCCTTCTTGATGT
CGCCTTTCTTCTTCTTGCTTTTTCTGATGTTCTGCTCAGCATGTTCTGGGTGCTTCTCATCT
GCATCATTCCTTTCAGATGCTGTAGCTTCTTCCTCCTCTTCTGCCTCCTTTTCTTTTTCTTTT
TTTTGGGGGGCTTGCTCTCTGACTGCAGTTGAGGGGGCCCCAGGGTCTGGCCTTTGAGACG
AGCCAGGAAGGCCTGCTCCTGGGCCTCTAGGCGAGCAAGCTTGGCCTTCATTGTGATCCCA
AGACGGGCAGCCTTGTGTGCTGTTGCCCCCTCACAGGCTTGGAGCAGCATCTCATCAGTCA
GAATCTTTGGGGACTTGGACCCCTGGTTGTGCTCATCACTGCAGCTCTCCAAGTCTTTGTTT
GGCTTCTCTCCACCTGAAGTCAATGTAGCCATCTTCACAACTTCTGATACAGCAAGTTGG
GCTTGGGATGATTATAACGGGTGGTCTCCTTAGAAAGGCTCCTTATCTGTACTCCATCCTG
CCCAGTTTCCACTACCAAGTTGGCCGAGTCTTGTGAAGAGCTCATTCCACCAAGTGGTTT
GTGAACTCCTTGGCAGGGTCATGTCTACCCCATGAGTGTCTTGCTTCAGYGTACCCTGA
GAGCCTGAGTGATAACCATTCTCCTTCCG

13714.1&2

GACAACATGAAATAAATCCTAGAGGACAAAATTAAGTCAATAGAGTGAGTCTAGTTAA
AAACTCGAAAAATGAGCAAGTCTGGTGGGAGTGAGGAAGGGCTATACTATAAATCCAAG
TGGGCCTCCTGATCTTAACAAGCCATGCTCATTATACACATCTCTGAACTGGACATACCAC
CTTTACGCAGGAAACAGGGCTTGGAACTTCTAAGGGAAATTAACATGCACCACCCACATC
TAACCTACCTGCCGGGTAGGTACCATCCCTGCTTCGCTGAAATCAGTGCTC

13716.1&2

TTGGAATTAAATAAACCTGGAACAGGGAAGGTGAAAGTTGGAGTGAGATGTCTTCCATAT
CTATACCTTTGTGCACAGTTGAATGGGAAGTGTGGGTTTAGGGCATCTTAGAGTTGATT
GATGGAAAAAGCAGACAGGAAGTGGTGGGAGGTCAAGTGGGGAAGTTGGTGAATGTGGA
ATAACTTACCTTTGTGCTCCACTTAAACCAGATGTGTTGCAGCTTTCCTGACATGCAAGGA
TCTACTTTAATTCCACACTCTCATTAATAAATTGAATAAAAGGGAATGTTTTGGCACCTGA
TATAATCTGCCAGGCTATGTGACAGTAGGAAGGAATGGTTTCCCCTAACAAAGCCCAATGC
ACTGGTCTGACTTTATAAATTATTTAATAAAATGAACTATTATC

FIG. 1K

13718.2

AAACTGGACCTGCAACAGGGACATGAATTTACTGCARGGTCTGAGCAAGCTCAGCCCCCTCT
ACCTCAGGGCCCCACAGCCATGACTACCTCCCCCAGGAGCGGGAGGGTGAAGGGGGCCTG
TCTCTGCAAGTGGAGCCAGAGTGGAGGAATGAGCTCTGAAGACACAGCACCCAGCCTTCT
CGCACCAGCCAAGCCTTAACCTGCCTGCCTGACCCTGAACCAGAACCCAGCTGAACTGCCCC
TCCAAGGGACAGGAAGGCTGGGGGAGGGAGTTTACAACCCAAGCCATTCCACCCCCTCCC
CTGCTGGGGAGAATGACACATCAAGCTGCTAACAATTGGGGGAAGGGGAAGGAAGAAAA
CTCTGAAAACAAAATCTTGT

13722.3

CATGCGTTTCACCACTGTTGGCCAGGCTGGTCTCGAACTCCTGGCCTCAAGCAATCCACCC
GCCTCAGCCTCCAAAAGTGCTGGGATTACAGATGTGAGCCATGGCACCATGCCAAAAGGC
TATATTCCTGGCTCTGTGTTTCCGAGACTGCTTTTAATCCCAACTTCTCTACATTTAGATTA
AAAAATATTTTATTCATGGTCAATCTGGAACATAATTACTGCATCTTAAGTTTCCACTGAT
GTATATAGAAGGCTAAAGGCACAATTTTTATCAAATCTAGTAGAGTAACCAAACATAAAA
TCATTAATTACTTTCAACTTAATAACTAATTGACATTCCTCAAAAGAGCTGTTTTCAATCCT
GATAGGTTCTTTATTTTTTCAAAATATATTTGCCATGGGATGCTAATTTGCAATAAGGCGC
ATAATGAGAATACCCCAAACCTGGA

13722.4

GTTGGACCCCCAGGGACTGGAAAGACACTTCTTGCCCGAGCTGTGGCGGGAGAAGCTGAT
GTTCTTTTATTATGCTTCTGGATCCGAATTTGATGAGATGTTTGTGGGTGTGGGAGCCAG
CCGTATCAGAAATCTTTTATAGGAAGCAAAGGCGAATGCTCCTTGTGTTATATTTATTGAT
GAATTAGATTCTGTTGGTGGGAAGAGAATTGAATCTCCAATGCATCCATATTCAAGGCAGA
CCATAAATCAACTTCTTGCTGAAATGGATGGTTTTAAACCCAATGAAGGAGTTATCATAAT
AGGAGCCACAACTTCCAGAGGCATTAGATAATGCCTTAATACCGTCCTGGTCGTTTTGA
CATGCAAGTTACAGTTCCAAGGCCAGATGTAAAAGGTGCAACAGAAATTTTGAAATGGTA
TCTCAATAAAATAAAGTTTGATCAATCCCGTTGATCCAGAAATTATAGCCTCGAGGTACTG
GTGGCTTTTCCGGAAGCAGAGTTGGGAGAATCTT

13724-13698-13748

GCCTACAACATCCAGAAAGAGTCTACCCTGCACCTGGTGTCTSCGTCTCAGAGGTGGGATGC
AGATCTTCGTGAAGACCCTGACTGGTAAGACCATCACTCTCGAAGTGGAGCCGAGTGACA
CCATYGAGAACGTCAAAGCAAAGATCCARGACAAGGAAGGCRTYCCTCCTGACCAGCAGA
GGTTGATCTTTGCCGGAAGCAGCTGGAAGATGGDCGCACCCTGTCTGACTACAACATCC
AGAAAGAGTCYACCCTGCACCTGGTGTCTCCGTCTCAGAGGTGGGATGTCARATCTTCGTGA
AGACCTGACTGGTAAGACCATCACCTCGAGGTGGAGCCAGTGACACCATCGAGAATG
TCAAGGCAAAGATCCAAGATAAGGAAGGCATCCCTCCTGATCAGCAGAGGTTGATCTTTG
CTGGGAAACAGCTGGAAGATGGACGCACCCTGTCTGACTACAACATCCAGAAAGAGTCCA
CTCTGCACTTGGTCTGCGCTTGAGGGGGGGGTGTCTAAGTTTCCCCTTTTAAGGTTTCMAC
AAATTTTCATGCACTTTCCTTTCAATAAAGTTGTTGCATTCCC

13730.1

GAACTGGGGCCCTGAGCCCAAGTCATGCCTTGTGTCCGCATCTGCCGTGTACCTCTGTKCC
TGCCCCCTCACCCTCCCTCCTGGTCTTCTGAGCCAGCACCATCTCCAAATAGCCTATTCCTT
CCTGCAAATCACACACACATGCGGGCCACACATACCTGCTGCCCTGGAGATGGGGAAGTA
GGAGAGATGAATAGAGGGCCATACATTGTACAGAAGGAGGGGCAGGTGCAGATAAAAGC
AGCAGACCCAGCGGCAGCTGAGGTGCATGGAGCACGGTTGGGGCCGGCATTGGGCTGAGC
ACCTGATGGGCCTCATCTCGTGAATCCTCGAGGCAGCGCCACAGCAGAGGAGTTAAGTGG
CACCTGGGCGGAGCAGAGCAGGAGACTGAGGGTCAGAGTGGAGGCTAAGCTGCCCTGGA
ACTCCTCAATCTTGCTGCCCCCTAGTATGAAGCCCCCTTCCTGCCCTACAATTCCTGA

13732.1

ATGGATCTTACTTTGCCACCCAGGTTGGAGTGCAGTGCTGCAATCTTGGCTCACTGCAGCC
TTAACCTCCCAGGCTCAAGCTATCCTCCTGCCAAAGCCTTCCACATAGCTGGGACTACAGG
TACACNGCCACCACACCCAGCTAAAATTTTGTATTTTTTGTAGAGACGGGATCTCGCCAC
GTTGCCCAGGCTGGTCCCATCCTGACCTCAAGCAGATCTGCCCACCTCAGCCCCCAACGT
GCTAGGATTACAGGCGTGAGCCACCGCACCCAGCCTTTGTTTTGCTTTAATGGAATCACC
AGTTCCCCTCCGTGTCTCAGCAGCAGCTGTGAGAAATGCTTTGCATCTGTGACCTTTATGA
AGGGGAACTTCCATGCTGAATGAGGGTAGGATTACATGCTCCTGTTTCCCGGGGGTCAAG
AAAGCCTCAGACTCCAGCATGATAAGCAGGGTGAG

13732.2

ATAGGGGCTTTAAGGAGGGAATTCAGGTTCAATGAGGTCGTAAGGCCAGGGCTCTTATCC
AGTAAGACTGGGGTCCTTAGATGAGAAAGAGACACCCGAGGTCCTTCTCTGCCGTGTG
AGGATGCATCAAGAAGGCGGCCGTCTGCAAGCGAAGGAGAGGCCCGCACCAGAAACCGAC
ACCTTCATCTTGACTTGCAGCCTCTAGAACTGAGAAAATAACTGTCTGTTGGTTAAGCCA
CCCAGTTTGTAGTATTCTTATGGCTTCCTAAGCAGACTAACAAACAAACACCCAAAATT
AACTGATGGCTTCGCTGTCTTCTGTAAAAATTGCTATGAGAGAACTTTTCACTCACTGTTTT
GCAGTTTCTCCCTCAGTCCCTGGTTCTTTCTTCTCACATAATCCCAATTTCAATTTATAGTTC
ATGGCCCAGGCAGAGTCATTCATCACGGCATCTCCTGAGCTAAACCAGCACCTGCTCTGCT
CACTTCTTGACTGGCTGCTCATCATCAGCCCTCTTGCAGAGATTTCAATTCCTCCCGTGCCA
GGTACTTCACGCACCAAGCTCA

FIG. 1M

13735.1

GGATAATGAAGTTGTTTTATTTAGCTTGGACAAAAAGGCATATTCCTCTATTTTCTTATACA
 ACAAATATCCCCAAAAATAAGCAAGCATATATATCTTGAATGTGTAATAATCCAGTGATA
 AACAAGAGCAGTACTTTAAAGAAAAAATATGTATTTCTGTCAGGTAAAATGAGAA
 TCAAAACCATTTACTCTGCTAACTCATTATTTTTTGCTTTCTTTTGGTTAAGAGAGGCAAT
 GCAATACACTGAAAAAGGTTTTATCTTATCTGGCATTGGAATTAGACATATTCAAACCCC
 AGCCCCCATTTCCAAACTTTAAGACCACAAACAAGTAATTTACTTTTCTGAACATTGGTTTT
 TTCTGGAAAATGGGAATTATAAAATAGACTTTGCAGACTCTTATGAGATTAAATAAGATA
 ATGTATGAAATTCTTTCTTCTTTTTACTTCTTTTTCCTTTTGTAGATGGAGTCTCACCCCGT
 CACCCAGGCTGGAGTACAGTG

13735.2

CCACTGCACTCCAGCCTGGGTGACGGAGTGAGACTCTGTCTCAAAAAACAAACAAACAA
 ACAAACAAAAAAGTGAAGGAAATAGAGTTCTCTTTCTCATATATGAATATATTATTT
 CAACAGATTGTTGATCACCTACCATATGCTTGGTATTGTTCTAATTGCTGGGGATACAGCA
 AGAGGTTCTGCAGAACTTCAATGGAGCATGAAAGTAAATAAACAAAGTTAATTTCAAGGCC
 AGGCATGGTTGCTCACACCTTTAGTCCCAGCACTTTGGGAGGCTGAGGCAGGTGGATCACT
 TGGGCCCAGGAGTTCAAGGCTGCAGTGAGCCAAGATTGTGCCACTACTCTCCAGGCTGGG
 CAACAGAGCAAGACCCTGTCTCAGGGGGAACAAAAAGTTAATTTGAGATTTTGTAAAGTG
 CTGTAAAGGAAGTAAATAGGTTGATATTCAAGAGAGCACCTGAAGGCCAGGCGTGGTGGC
 TCACGCCTGTGGTCTAACGCTTTGGGAAGCCCGAGCGGGCGGATCACAAGGTCAGGAGAA
 TTTTGGCCAGGCATGGTG

13736.1

AGAATCCATTTATTGGGTTTTAAACTAGTTACACAAGTGAATCAGTTTGGCACTACTTTA
 TACAGGGATTACGCCTGTGTATGCCGACACTTAAATACTGTACCAGGACCCTGCTGTGCT
 TAGGTCTGTATTCACTCATTACAGCATGTAGATACTAAAAATATACTGTAGTGTTCTTTAA
 GGAAGACTGTACAGGGTGTGTTGCAAGATGACATTCACCAATTTGTGAATTATTCAACCC
 AGAAGATACCTTTCACTCTATAAACTTGTATAGGCAACATGTGGTGTAGCATTGAGAG
 ATGCACACAAAAATGTTACATAAAAGTTCAGACATTCTAATGATAAGTGAAGTGAACAAAA
 AAAAAACCCACATCTCAATTTTGTAAACAAGATAAAGAAAATAATTTAAAAACACAAA
 AAATGGCATTCACTGGGTACAAAGCC

13737.1&2

CAAATATTTAATATAAAATCTTTGAAACAAGTTCAGAKGAAATAAAAAATCAAAGTTTGCAA
 AAACGTGAAGATTAACCTAATTGTCAAATATTCCTCATTGCCCCAAATCAGTATTTTTTTTA
 TTTCTATGCAAAAGTATGCCTTCAAAGTCTTAAATGATATATGATATGATACACAAACCA
 GTTTTCAAATAGTAAAGCCAGTCATCTTGAATTGTAAGAAATAGGTAAAAGATTATAAG
 ACACCTTACACACACACACACACACACACACACACGTTGTCACcGCCAATGACAAAAAAC
 AATTTGGCCTCTCCTAAAATAAGAACATGAAGACCCTTAATTGCTGCCAGGAGGGAACAC
 TGTGTACCCCTCCCTACAATCCAGGTAGTTTCTTTAATCCAATAGCAAATCTGGGCATAT
 TTGAGAGGAGTGATTCTGACAGCCACSGTTGAAATCCTGTGGGGAACCATTCATGTCCACC
 CACTGGTGGCCTGAAAAAATGCCAATAATTTTCGCTCCCACTTCTGCTGCTGTCTCTTCCA
 CATCCTCACATAGACCCAGACCCGCTGGCCCTGGCTGGGCATCGCATTGCTGGTAGAGC
 AAGTCATAGGTCTCGTCTTTGACGTCACAGAAGCGATACACCAAATTGCCTGGTGGTTCAT
 TGTACATAACCAG

13738.1

TTTGACTTTAGTAGGGGTCTGAACTATTTATTTTACTTTGCCMGTAATATTTARACCYTATA
TATCTTTCATTATGCCATCTTATCTTCTAATGBCAAGGGAACAGWTGCTAAMCTGGCTTCT
GCATTWATCACATTAAAAATGGCTTCTTGGAAAAATCTTCTTGATATGAATAAAGGATCTT
TTAVAGCCATCATTAAAGCMGGNTTCTCTCCAACACGAGTCTGCTASGGGGGGGKGAGCT
GTGAACTCTGGCTGAAGGCTTTCCCATACACACTGCAATGACMTGGTTTCTGACCAGBGTG
AGTTA

13738.2

AGAGAAGCCCCATAAATGCAATCAGTGTGGGAAGGCCTTCAGTCAGAGCTCAAGCCTTTT
CCTCCATCATCGGGTTCATACTGGAGAGAAACCTATGTATGTAATGAATGCGGCAGAGCC
TTTGGTTTTAACTCTCATCTTACTGAACACGTAAGGATTCACACAGGAGAAAAACCTATG
TTTGTAAATGAGTGC GGCAAAGCCTTTCGTGCGAGTTCACACTCTTGTTCAGCATCGAAGAGT
TCACACTGGGGGAGAAGCCCTACCAAGTGC GTTGAATGTGGGAAAGCTTTCAGCCAGAGCTC
CCAGCTCACCTACATCAGCCGAGTTCACACTGGAGAGAAGCCCTATGACTGTGGTGACTG
TGGGAAGGCCTTCAGCCGGAGGTCAACCCCTATTTCAGCATCAGAAAGTTCACAGCGGAGA
GACTCGTAAGTGCAGAAAAACATGGTCCAGCCTTTGTTCATGGCTCCAGCCTCACAGCAGAT
GGACAGATTCCCACTGGAGAGAAGCACGGCAGAACCTTTAACCATGGTGCAAATCTCATT
CTGCGCTGGACAGTTC

13739.1&2

GAGACAGGGTCTCACTTTGTCAACCAGGCTGGAATGCAGTGGTGCGATCTTACGTAGCTCA
CTGCAGCCCTGACCTCCTGGACTCAAACAATTCTCCTGCCTCAGCCCTGCAAGTAGCTGGG
ACTGTGGGTGCATGCCACCATGCCTGGCTAACTTTGTAGTTTTTGTAAAGATGGGGTTTT
GCCATGTTGCACATGCTGGTCTTGAACCTCTGAGCTCAAACGATCTGCCCACCTCGGCCTC
CCAGAATGTTGGGATTACAGGGGTAAACCACCACGCCTGGCCCCATTAGGGTATTCTTAGC
ATCCACTTGCTCACTGAGATTAATCATAAGAGATGATAAGCACTGGAAGAAAAAAATTTTT
ACTAGGCTTTGGATATTTTTTCTTTTTCAGCTTTATACAGAGGATTGGATCTTTAGTTTTIC
CTTTAACTGATAATAAAACATTGAAAGGAAATAAGTTTACCTGAGATTCACAGAGATAAC
CGGCATCACTCCCTTGCTCAATTCCAGTCTTTACCACATCAATTATTTTCAGAGGTGCAGGA
TAAAGGCCTTTAGTCTGCTTTCGCACTTTTTCTTCCACTTTTTTGTAAACCTGTTGCCTGACA
AATGGAATTGACAGCGTATGCCATGACTATTCCATTTGTGAGGCATACGCTGTCAATTTTT
CCACCAATCCCTTGCTCTCTCTTTGGAGAGATCTTCTTATCAGCTAGTCCTTTGGCAAAAGTA
ATTGCAACTTCTTCTAGGTATTCTATTGTCCGTTCCACTGGTGGAACCCCTGGGACCAGGA
CTAAAACCTCCAG

13741.1

ATCTCATATATATATTTCTTCTGACTTTATTTGCTTGCTTCTGNACGCATTTAAATATC
ACAGAGACCAAAATAGAGCGGCTTTCTGGTGGAACGCATGGCAGTCACAGGACAAAATAC
AAAAGTAGGGGGCTCTGTCTTCTCATACATCATACAATTTTCAAGTATTTTTTTATGTACA
AAGAGCTACTCTATCTGAAAAAAATTAATAAATAAATGAGACAAGATAGTTTATGCATC
CTAGGAAGAAAGAATGGGAAGAAAGAACGGGGCAGTTGGGTACAGATTCTGTCCCCTGT
TCCCAGGGACCACTACCTTCTGCCACTGAGTTCACCCACAGCCTCACCCATCATGTACACA
GGGCAAGTGCCAGGGTAGGTGGGGACCAAGTGAGAGACAGGAACCAGCAACATACTTTGGC
CTGGAAGATAAGGAGAAAGTCTCAGAAACACACTGGTGGGAAGCAATCCACNNGGCCGT
GCCCCANGAGCTTCCCACTGCTGCTGGCTCCCTGGGTGGCTTTGGGAACAGCTTGGGCAG
GCCCTTTTGGGTGGGGNCCAACTGGGCCTTTGGGCCCCGTGTGGAAAG

FIG. 10

13742.1

AAACATTGAGATGGAATGATAGGGTTTCCCAGAATCAGGTCCATATTTTAACTAAATGAA
AATTATGATTTATAGCCTTCTCAAATACCTGCCATACTTGATATCTCAACCAGAGCTAATTT
TACCTCTTTACAAATTAATAAAGCAAGTAACTGGATCCACAATTTATAATACCTGTCAATT
TTTTCTGTATTAAACCTCTATCATAGTTTAAGCCTATTAGGGTACTTAATCCTTACAAATAA
ACAGGTTTAAAAATCACCTCAATAGGCAACTGCCCTTCTGGTTTTCTTCTTTGACTAAACAAT
CTGAATGCTTAAGATTTTCCACTTTGGGTGCTAGCAGTACACAGTGTTACACTCTGTATTCC
AGACTTCTTAAATTATAGAAAAAGGAATGTACACTTTTTGTATTCTTTCTGAGCAGGGCCG
GGAGGCAACATCATCTACCATGGTAGGGACTTGTATGCATGGACTACTTTA

14351.1

ACTCTGTCGCCCAGGCTGGAGCCCBTGGMCGCATCTCGACTCCCTGCAAGCTMCGCCTC
ACAGGWTGATGCCATTCTCCTGCCTCAGCATCTGGAGTAGCTGGGACTACAGGCGCCAGC
CACCATGCCCAGCTAATTTT

14351.2

ACCTTAAAGACATAGGAGAATTTATACTGGGAGAGAAAAGCTTACAAATGTAAGGTTTCTG
ACAAGACTTGGGAGTGATTACACCTGGAACAACATACTGGACTTCACACTGGABAGAAA
CCTTACAAGTGTAATGAGTGTGGCAAAGCCTTTGGCAAGCAGTCAACACTTATTCACCATC
AGGCAATTCA

14354.2

AGTCAGGATCATGATGGCTCAGTTTCCCACAGCGATGAATGGAGGGCCAAATATGTGGGC
TATTACATCTGAAGAACGTACTAAGCATGATAAACAGTTTGATAACCTCAAACCTTCAGGA
GGTTACATAACAGGTGATCAAGCCCGTACTTTTTCTACAGTCAGGTCTGCCGGCCCCGG
TTTTAGCTGAAATATGGGCCTTATCAGATCTGAACAAGGATGGGAAGATGGACCAGCAAG
AGTTCTCTATAGCTATGAACTCATCAAGTTAAAGTTGCAGGGCCAACAGCTGCCTGTAGT
CCTCCCTCCTATCATGAAACAACCCCTATGTTCTCTCCACTAATCTCTGCTCGTTTTGGGA
TGGGAAGCATGCCCAATCTGTCCATTATCAGCCATTGCCTCCAGTTGCACCTATAGCAAC
ACCCTTGCTTCTGCTACTTCAGGGACCAGTATTCTCCCTAATGATGCCTGCT

14354.1

CTTTCGATTTCTTCAATTTGTACGTTTGATTTTATGAAGTTGTTCAAGGGCTAACTGCTG
TGTATTATAGCTTTCTCTGAGTTCCTTCAGCTGATTGTTAAATGAATCCATTTCTGAGAGCT
TAGATGCAGTTCTTTTTCAAGAGCATCTAATTGTTCTTTAAGTCTTTGGCATAATTCTTCC
TTTTCTGATGACTTTCTATGAAGTAACTGATCCCTGAATCAGGTGTGTTACTGAGCTGCAT
GTTTTTAATTCTTTGTTAATAGCTGCTTCTCAGGGACCAGATAGATAAGCTTATTTTGAT
ATTCTTAAGCTCTTGGTGAAGTTGTTGATTTCCATAATTTCCAGGTACACTGGTTATCC
CAAACCTCT

FIG. 1P

16431.1.2

GTGGAGGTGAAACGGAGGCAAGAAAGGGGGCTACCTCAGGAGCGAGGGACAAAGGGGGC
GTGAGGCACCTAGGCCGCGGCACCCCGGCGACAGGAAGCCGTCTGAACCGGGCTACCGG
GTAGGGGAAGGGCCCGGTAGTCCTCGCAGGGCCCCAGAGCTGGAGTCGGCTCCACAGCC
CCGGGCCGTGCGCTTCTCACTTCCTGGACCTCCCCGGCGCCCGGGCTGAGGACTGGCTCG
GCGGAGGGGAGAAGAGGAAAACAGACTTGAGCAGCTCCCCGTGTCTCGCAACTCCACTGCC
GAGGAACCTCTCATTTCTTCCTCGCTCCTTACCCCCCACCTCATGTAGAAAGGTGCTGAA
GCGTCCGGAGGGGAAGAAGAACCTGGGCTACCGTCCTGGCCTTCCCMCCCCCTTCCCGGGG
CGCTTTGGTGGGCGTGGAGTTGGGGTTGGGGGGGTGGGTGGGGGTCTTTTTTGGAGTGTCT
GGGGAACCTTTTTTCCCTTCTCAGGTACAGGGGAAAGGGAATGCCCAATTCAGAGAGACAT
GGGGGCAAGAAGGACGGGAGTGGAGGAGCTTCTGGAACCTTGACAGCCGTATCGGGAGG
CGGCAGCTCTAACAGCAGAGAGCGTCACCGCTTGGTATCGAAGCACAAGCGGCATAAGTC
CAAACACTCCAAAGACATGGGGTTGGTGACCCCGAAGCAGCATCCCTGGGCACAGTTAT
CAAACCTTTGGTGGAGTATGATGATATCAGCTCTGATTCCGACACCTTCTCCGATGACATG
GCCTTCAAACCTAGACCGAAGGGAGAACGACGAACGTCGTGGATCAGATCGGAGCGACCGC
CTGCACAAACATCGTCACCACCAGCACAGGCGTTCCCGGACTTACTAAAAGCTAAACAG
ACCG

16432-1

GACATGTTTGCCTGCAGGGGACCAGAGACAATGGGATTAGCCAGTGCTCACTGTTCTTTAT
GCTTCCAGAGAGGATGGGGACAGCTCTCAGGTGAGAATCCAGGCTGAGAAGGCCATGCTG
GTTGGGGGCCCCCGGAAGCACGGTCCGGATCCTCCCTGGCATCAGCGTAGACCCGCTGCTC
AGGCTTGGGGTACCAAACTCATGCTCTGTACTGTTTGGCCCCATGCGGTGAGAGGAAAAC
CTAGAAAAAGATTGGTCGTGCTAAGGAATCAGCTGCCCCCTCATCCTCCGCATCCAATGCT
GGTGACAACATATTCCCTCTCCCAGGACACAGACTCGGTGACTCCACACTGGGCTGAGTGG
CCTCTGGAGGCTCGTGCCCTAAGGCAGGGCTCCGTAAGGCTGATCGGCTGAACCTGGGTGG
GGTGAGGGTTTCTGACCCTTCGCTTCCCATCCCATAACCGCTGTCAATGAGCTCACACTGT
GGTCA

16432-2

GATGGCATGGTCGTTGCTAATGTGCCTGCTGGGATGGAGCACTTCCTCCTGTGAGCCCAGG
GGACCCGCTGTCCCTGGAGCTTGGGGCAAGGAGGGAAGAGTGATACCAGGAAGGTGGG
GCTGCAGCCAGGGGCCAGAGTCAGTTCAGGGAGTGGTCCTCGGCCCTCAAAGCTCCTCCG
GGGACTGCTCAGGAGTGATGGTGCCCTGGAGTTTGCCCCAACTTCCCTGGCCACCCTGGAA
GGTGCCTGGCTGCTCAGGCCTCTAGGCTGGGCTGATGGGTTTCTCCAGGACACAAGTATC
ATTAAAGCCACCCTCTCCTCAGCTTGTCAGGCCGCACATGTGGGACAGGCTGTGCTCACAA
CCCCCTCGCCTGCCCTGCCCTCCATCAGGAGGAGCCAGTGGAACCTTCGGAAAGCTCCAG
CATCTCAGCAGCCCTCAAAGTCGTCTGGGGCAAGCTCTGGTTCTCCTGACTGGAGGTCA
TCTGGGCTTGGCCTGCTCTCTCTCGC

17184.3

TAAAAAAGTGTAACAAAGGTTTATTTAGACTTTCTTCATGCCCCCAGATCCAGGATGTCTA
TGTAACCGTTATCTTACAAAGAAAGCACAATATTGGTATAAACTAAGTCAGTGACTTGC
TTAACTGAAATAGCGTCCATCCAAAAGTGGGTTAAGGTAAAACTACCTGACGATATTGGC
GGGGATCCTGCAGTTTGGACTGCTTGCCGGGTTTGTCCAGGGTTCCGGGTCTGTTCTTGGC
ACTCATGGGGACAGGCATCCTGCTCGTCTGTGGGGCCCCGCTGGAGCCCTTACGTGAAGCT
GAAGGTATCGACCSTAGGGGGCTCTAGGGCAGTGGGACCTTCATCCGGAACATAACAAGGG
TCGGGGAGAGGCCTCTTGGGCTATGTGGG

FIG. 1Q

17184.4

CAAGCGTTCCTTTATGGATGTAAATTCAAACAGTCATGCTGAGCCATCCCCGGGCTGACAGT
CACGTTWAAGACACTAGGTTCGGGCGCCACAGTGCCACCCAAGGAGAAGAAGAAATTTGGA
ATTTTCCATGAAGATGTACGGAAATCTGATGTTGAATATGAAAATGGCCCCCAAATGGAA
TTCCAAAAGGTTACCACAGGGGCTGTAAGACCTAGTGACCCTCCTAAGTGGGAAAAGAGGA
ATGGAGAATAGTATTTCTGATGCATCAAGAACATCAGAATATAAACTGAGATCATAATG
AAGGAAAATTCCATATCCAATATGAGTTTACTCAGAGACAGTAGAACTATTCCCAGG

17185.1

TAGGAATAACAAATGTTTATTCAGAAATGGATAAGTAATACATAATCACCTTCATCTCTT
AATGCCCCCTTCCTCTCCTTCTGCACAGGAGACACAGATGGGTAAACATAGAGGCATGGGAA
GTGGAGGAGGACACAGGACTAGCCACACCTTCTCTTCCCGGTCTCCCAAGATGACTGT
TATAGAGTGGAGGAGGCAAACAGGTCCCCTCAATGTACCAGATGGTCACCTATAGCACCA
GCTCCAGATGGCCACGTGGTTGCAGCTGGACTCAATGAACTCTGTGACAACCAGAAGAT
ACCTGCTTTGGGATGAGAGGGAGGATAAAGCCATGCAGGGAGGATATTTACCATCCCTAC
CCTAAGCACAGTGCAAGCAGTGAGCCCCCGGCTCCAGTACCTGAAAAACCAAGGCCTAC
TGNCTTTTGGATGCTCTCTTGGGCCACG

17188.2

AAGCCTCCTGCCCTGGAAATCTGGAGCCCCCTTGGAGCTGAGCTGGACGGGGCAGGGAGGG
GCTGAGAGGCAAGACCGTCTCCCTCCTGCTGCAGCTGCTTCCCCAGCAGCCACTGCTGGGC
ACAGCAGAAACGCCAGCAGAGAAAATGGGAGCCGAGAGTCCTTAGCCCTGGAGCTGAGG
CTGCCCTCTGGGCTGACCCGCTGGCTGTACGTGGCCAGAACTGGGGTTGGCATCTGGCATCC
ATTTGAGGCCAGGGTGGAGGAAAGGGAGGCCAACAGAGGAAAACCTATTCTGCTGTGAC
AACACAGCCCTTGTCCCACGCAGCCTAAGTGCAGGGAGCGTGATGAAGTCAGGCAGCCAG
TCGGGGAGGACGAGGTAACCTCAGCAGCAATGTCACCTTGTAGCCTATGCGCTCAATGGCC
CGGAGGGGCAGCAACCCCCCGCACACGTACGCCAACAGCAGTGCCTCTGCAGGCACCAAG
AGAGCGATGATGGACTTGAGCGCCGTGTTT

17190.1

GTTTGGCAGAAGACATGTTTAATAACATTTTCATATTTAAAAAATACAGCAACAATTCTCT
ATCTGTCCACCATCTTGCCTTGCCCTTCTGGGGCTGAGGCAGACAAAGGAAAGGTAATGA
GGTTAGGGCCCCCAGGCGGGCTAAGTGCTATTGGCCTGCTCCTGCTCAAAGAGAGCCATA
GCCAGCTGGGCACGGCCCCCTAGCCCCCTCAGGTTGCTGAGGCGGCAGCGGTGGTAGAGT
TCTTCACTGAGCCGTGGGCTGCAGTCTCGCAGGGAGAACTTCTGCACCAGCCCTGGCTCTA
CGGCCCCGAAAGAGGTGGAGCCCTGAGAACCGGAGGAAAACATCCATCACCTCCAGCCCCCT
CCAGGGCTTCTCCTCTTCTGGCCTGCCAGTTCACCTGCCAGCCGGGCTCGGGCCGCCAG
GTAGTCAGCGTTGTAGAAGCAGCCCTCCGCAGAAGCCTGCCGGTCAAATCTCCCCGCTATA
GGAGCCCCCCCCGGAGGGGTCAGCAC

FIG. 1R

17190.2

CAAGTTGAACGTCAGGCTTGGCAGAGGTGGAGTGTAGATGAAAACAAAGGTGTGATTATG
AAGAGGATGTGAGTCCTTTGGGTGTAGGAGAGAAAGGCTGTTGAGCTTCTATTTCAAGAT
ACTTTTACCTGTGCAAAAAGCACATTTTCCACCTCCTTCTCATGGCATTGTGTAAAGGTGAG
TATGATTCTATTCCATCTGCATTTTAGAGGTGAAGAATAACGTACAAGGGATTTCAGTGAT
TAGCAAGGGACCCCTCACTAAGTGTTGATGGAGTTAGGACAGAGCTCAGCTGTTTGAATCT
CAGAGCCCAGGCAGCTGGAGCTGGGTAGGATCCTGGAGCTGGCACTAATGTGAGGTGCAT
TCCCTCCAACCCAGGCTCAGATCCGGAACCTGACCGTGCTGACCCCCGAAGGGGAGGCAG
GGCTGAGCTGGCCCGTTGGGCTCCCTGCTCCTTTCACACCACACTCTCGCTTTGAGGTGCTG
GGCTGGGACTACTTCACAGAGCAGC

17191.2&89.2

TGGCCTGGGCAGGATTGGGAGAGAGGTAGCTACCCGGATGCAGTCCTTTGGGATGAAGAC
TATAGGGTATGACCCCATCATTTCCCCAGAGGTCTCGGCCTCCTTTGGTGTTTCAGCAGCTG
CCCTGAGGAGATCTGGCCTCTCTGTGATTTCACTGTGCACACTCCTCTCCTGCCCTC
CACGACAGGCTTGCTGAATGACAACACCTTTGCCCAGTGCAAGAAGGGGGTGCGTGTGGT
GAACTGTGCCCCGTGGAGGGATCGTGGACGAAGGCGCCCTGCTCCGGGCCCTGCAGTCTGG
CCAGTGTGCCGGGGCTGCACTGGACGTGTTTACGGAAGAGCCGCCACGGGACCGGGCCTT
GGTGGACCATGAGAATGTCATCAGCTGTCCCCACCTGGGTGCCAGCACCAAGGAGGCTCA
GAGCCGCTGTGGGGAGGAAATTGCTGTTTCAGTTCGTGGACATGGTGAAGGGGAAATCTCT
CACGGGGGTTGTGAATGCCCAGGCCCTT

AGCCAGATGGCTGAGAGCTGCAAGAAGAAGTCAGGATCATGATGGCTCAGTTTCCCACAG
 CGATGAATGGAGGGCCAAATATGTGGGCTATTACATCTGAAGAACGTACTAAGCATGATA
 AACAGTTTGATAACCTCAAACCTTCAGGAGGTTACATAACAGGTGATCAAGCCCGTACTTT
 TTTCTACAGTCAGGTCTGCCGGCCCCGGTTTTAGCTGAAATATGGGCCTTATCAGATCTG
 AACAAGGATGGGAAGATGGACCAGCAAGAGTTCTCTATAGCTATGAAACTCATCAAGTTA
 AAGTTGCAGGGCCAACAGCTGCCTGTAGTCCTCCCTCCTATCATGAAACAACCCCTATGT
 TCTCTCCACTAATCTCTGCTCGTTTTGGGATGGGAAGCATGCCCAATCTGTCCATTATCAG
 CCATTGCCTCCAGTTGCACCTATAGCAACACCCTTGTCTTCTGCTACTTCAGGGACCAGTAT
 TCCTCCCCTAATGATGCCTGCTCCCCTAGTGCCTTCTGTTAGTACATCCTCATTACCAAATG
 GAACTGCCAGTCTCATTACGCCTTTATCCATTCCCTTATTCTTCTTCAACATTGCCTCATGCA
 TCATCTTACAGCCTGATGATGGGAGGATTTGGTGGTGTAGTATCCAGAAGGCCAGTCTC
 TGATTGATTTAGGATCTAGTAGCTCAACTTCCTCAACTGCTTCCCTCTCAGGGAACCTACCT
 AAGACAGGGACCTCAGAGTGGGCAGTTCCCTCAGCCTTCAAGATTAAAGTATCGGCAAAAA
 TTTAATAGCTAGACAAAGGCATGAGCGGATACCTCTCAGGTTTTCAAGCTAGAAATGCCC
 TTCTTCAGTCAAATCTCTCTCAAACCTCAGCTAGCTACTATTTGGACTCTGGCTGACATCGAT
 GGTGACGGACAGTTGAAAGCTGAAGAATTTATTCTGGCGATGCACCTCACTGACATGGCC
 AAAGCTGGACAGCCACTACCACTGACGTTGCCCTCCCGAGCTTGTCCCTCCATCTTTTCAGAG
 GGGGAAAGCAAGTTGATTCTGTTAATGGAACCTCTGCCTTCATATCAGAAAACACAAGAAG
 AAGAGCCTCAGAAGAAACTGCCAGTTACTTTTGAGGACAAACGGAAAGCCAACTATGAAC
 GAGGAAACATGGAGCTGGAGAAGCGACGCCAAGTGTGATGGAGCAGCAGCAGAGGGAG
 GCTGAACGCAAAGCCCAGAAAGAGAAGGAAGAGTGGGAGCGGAAACAGAGAGAACTGC
 AAGAGCAAGAATGGAAGAAGCAGCTGGAGTTGGAGAAACGCTTGGAGAAACAGAGAGAG
 CTGGAGAGACAGCGGGAGGAAGAGAGGAGAAAGGAGATAGAAAGACGAGAGGCAGCAA
 AACAGGAGCTTGAGAGACAACGCCGTTTAGAATGGGAAAGACTCCGTCGGCAGGAGCTGC
 TCAGTCAGAAGACCAGGGAACAAGAAGACATTGTCAGGCTGAGCTCCAGAAAGAAAAGT
 CTCCACCTGGAAGTGAAGCAGTGAATGGAAAACATCAGCAGATCTCAGGCAGACTACAA
 GATGTCCAAATCAGAAAGCAAACACAAAAGACTGAGCTAGAAGTTTTGGATAAACAGTGT
 GACCTGGAAATTATGGAAATCAAACAACCTTCAACAAGAGCTTAAGGAATATCAAAATAAG
 CTTATCTATCTGGTCCCTGAGAAGCAGCTATTAAACGAAAGAATTAAAAACATGCAGCTCA
 GTAACACACCTGATTACAGGGATCAGTTTACTTCATAAAAAAGTCATCAGAAAAGGAAGAAT
 TATGCCAAAGACTTAAAGAACAATTAGATGCTCTTGAAAAAGAAACTGCATCTAAGCTCT
 CAGAAATGGATTCATTTAACAATCAGCTGAAGGAACTCAGAGAAAGCTATAATACACAGC
 AGTTAGCCCTTGAACAACCTTCATAAAATCAAACGTGACAAATTGAAGGAAATCGAAAGAA
 AAAGATTAGAGCAAAAAAAAAAAAAA

FIG. 2A

ATGGCAGTGACATTCACCATCATGGGAACACCTTCCCTTTTCTTCAGGATTCTCTGTAGTG
GAAGAGAGCACCCAGTGTTGGGCTGAAAACATCTGAAAGTAGGGAGAAGAACCTAAAAT
AATCAGTATCTCAGAGGGCTCTAAGGTGCCAAGAAGTCTCACTGGACATTTAAGTGCCAA
CAAAGGCATACTTTCGGAATCGCCAAGTCAAACTTTCTAACTTCTGTCTCTCTCAGAGAC
AAGTGAGACTCAAGAGTCTACTGCTTTAGTGGCAACTACAGAAAAGTGGTGTTACCCAGA
AAAACAGGAGCAATTAGAAATGGTTCCAATATTTCAAAGCTCCGCAAACAGGATGTGCTT
TCCTTTGCCCATTAGGGTTTCTTCTCTTTCCTTTCTCTTTATTAACCACTA

FIG. 2B

ATATCTAGAAGTCTGGAGTGAGCAAACAAGAGCAAGAAACAAAAAGAAGCCAAAAGCAG
 AAGGCTCCAATATGAACAAGATAAATCTATCTTCAAAGACATATTAGAAGTTGGGAAAAT
 AATTCATGTGAACTAGACAAGTGTGTTAAGAGTGATAAGTAAATGACACGTGGAGACAAG
 TGCATCCCCAGATCTCAGGGACCTCCCCCTGCCTGTACCTGGGGAGTGAGAGGACAGGAT
 AGTGCATGTTCTTTGTCTCTGAATTTTTAGTTATATGTGCTGTAATGTTGCTCTGAGGAAGC
 CCTGGAAGTCTATCCCAACATATCCACATCTTATATTCCACAAATTAAGCTGTAGTATG
 TACCCTAAGACGCTGCTAATTGACTGCCACTTCGCAACTCAGGGGCGGCTGCATTTTAGTA
 ATGGGTCAAATGATTCACCTTTTTATGATGCTTCAAAGGTGCCTTGGCTTCTCTTCCCAACT
 GACAAATGCCAAAGTTGAGAAAAATGATCATAATTTTAGCATAAACAGAGCAGTCGGCGA
 CACCGATTTTATAAATAAACTGAGCACCTTCTTTTTAAACAAACAAATGCGGGTTTATTTCT
 CAGATGATGTTTCATCCGTGAATGGTCCAGGGAAGGACCTTTCACCTTGACTATATGGCATT
 ATGTCATCACAAGCTCTGAGGCTTCTCCTTTCCATCCTGCGTGGACAGCTAAGACCTCAGT
 TTTCAATAGCATCTAGAGCAGTGGGACTCAGCTGGGGTGATTTGCCCCCATCTCCGGGG
 GAATGTCTGAAGACAATTTTGTTACCTCAATGAGGGAGTGGAGGAGGATACAGTGCTACT
 ACCAACTAGTGGATAAAGGCCAGGGATGCTGCTCAACCTCCTACCATGTACAGGACGTCTC
 CCCATTACAACCTACCCAATCCGAAGTGCAACTGTGTCAGGACTAAGAAACCCTGGTTTTG
 AGTAGAAAAGGGCCTGGAAGAGGGGAGCCAACAAATCTGTCTGCTTCTCCTCACATTAGTC
 ATTGGCAAATAAGCATTCTGTCTCTTTGGCTGCTGCCTCAGCACAGAGAGCCAGAACTCTA
 TCGGGCACCAGGATAACATCTCTCAGTGAACAGAGTTGACAAGGCCTATGGGAAATGCCT
 GATGGGATTATCTTCAGCTTGTTGAGCTTCTAAGTTTCTTTCCCTTCATTCTACCCTGCAAG
 CCAAGTTCTGTAAGAGAAAATGCCTGAGTTCTAGCTCAGGTTTTCTTACTCTGAATTTAGATC
 TCCAGACCCTTCTGGCCACAATTCAAATTAAGGCAACAAACATATACCTTCCATGAAGCA
 CACACAGACTTTTGAAGCAAGGACAATGACTGCTTGAATTGAGGCCTTGAGGAATGAAG
 CTTTGAAGGAAAAGAATACTTTGTTTCCAGCCCCCTTCCCACACTCTTCATGTGTAAACCAC
 TGCCTTCTGACCTTGGAGCCACGGTGACTGTATTACATGTTGTTATAGAAAACCTGATTTT
 AGAGTTCTGATCGTTCAAGAGAATGATTAAATATACATTTCTTA

FIG. 2C

Cell Exp	Probe 1	Probe 2	Cell 1/1 (nmol)	Probe 1	Probe 2	5/10	A%	Probe 1	Probe 2	5/10	A%
1.7	104A Ovary Tumor	272A Dendritic Cells	42200600 (420)	2383	1430	13.7	50	2383	1430	2.0	50
1.1	115A Ovary Tumor	57 Ovary T	42200626 (420)	355	382	27	54	355	382	1.0	54
1.0	261A Ovary Tumor	510 Skeletal muscle N	42200621 (420)	1280	707	6.9	51	1280	707	1.9	51
1.1	264A Ovary Tumor	52 Pancreas T	42200629 (420)	8500	1100	44.0	62	8500	1100	2.3	62
1.2	385A	S40	42200605 (420)	510	618	3.6	50	510	618	2.0	50
1.4	265A Ovary Tumor	C15 Blood N	42200624 (420)	2305	489	14.0	53	2305	489	2.2	53
1.4	525 Ovary Tumor	C14 Bone Marrow N	42200619 (420)	531	743	3.5	53	531	743	2.0	53
1.9	301A	II	42200600 (420)	1042	671	10.0	39	1042	671	2.0	39
1.9	S22 Ovary Tumor	C19 Kidney T	42200627 (420)	453	857	3.3	68	453	857	3.2	68
1.2	9005 T P	9405 S P	42200602 (420)	1092	504	12.2	57	1092	504	2.3	57
1.5	202A Ovary Tumor	334A Lung Invasive II	42200622 (420)	1406	865	7.5	55	1406	865	2.2	55
1.1	S115	C110	42200604 (420)	509	573	3.4	51	509	573	2.0	51
1.1	208A Ovary Tumor	C112 Lung N	42200625 (420)	700	651	4.5	54	700	651	2.1	54
1.7	201A Ovary Tumor	S6 Stomach N	42200620 (420)	625	1335	4.6	46	625	1335	3.0	46
1.0	S23 Ovary Tumor	S56 Spinal Cord N	42200620 (420)	3896	502	22.2	50	3896	502	2.2	50
1.0	205A	270A	42200606 (420)	2251	1256	14.7	46	2251	1256	2.0	46
1.0	9334	I2	42200601 (420)	552	1028	3.4	72	552	1028	2.3	72
1.5	305A Ovary T	S01 Fetal tissue	42200607 (420)	8126	1449	35.6	50	8126	1449	2.0	50
1.5	263A Ovary Tumor	S73 Breast N	42200623 (420)	439	1531	3.2	61	439	1531	3.4	61
1.3	302A	C119	42200610 (420)	367	1278	3.2	50	367	1278	2.1	50
1.0	206A	S27	42200603 (420)	4242	883	22.2	58	4242	883	2.0	58

FIG. 3

TCGAGCGGCCGCCCCGGGCAGGTCCTTCAGACTTGGACTGTGTCACACTGCCAGGCTTCCAG
GGCTCCAACCTTGACAGACGGCCTGTTGTGGGACAGTCTCTGTAATCGCGAAAGCAACCATG
GAAGACCTGGGGGAAAACACCATGGTTTTATCCACCCTGAGATCTTTGAACAACTTCATCT
CTCAGCGTGCGGAGGGAGGCTCTGGACTGGATATTTCTACCTCGGCCGCGACCACGCT

FIG. 4

TAGCGYGGTCGCGGCCGAGGYCTGCTTYTCTGTCCAGCCCAGGGCCTGTGGGGTCAGGGC
GGTGGGTGCAGATGGCATCCACTCCGGTGGCTTCCCCATCTTTCTCTGGCCTGAGCAAGGT
CAGCCTGCAGCCAGAGTACAGAGGGCCAACACTGGTGTTCTTGAACAAGGGCCTTAGCAG
GCCCTGAAGGRCCCTCTCTGTAGTGTTGAACTTCCTGGAGCCAGGCCACATGTTCTCCTCAT
ACCGCAGGYTAGYGATGGTGAAGTTGAGGGTGAAATAGTATTMANGRAGATGGCTGGCA
RACCTGCCCCGGCGGCCGCTCSAAATCC

FIG. 5

AGCGTGGTCGCGGCCGAGGTGTCCTTCAGGGTCTGCTTATGCCCTTGTTCAAGAACACCAG
TGTCAGCTCTCTGTACTCTGGTTGCAGACTGACCTTGCTCAGGCCTGAGAAGGATGGGGCA
GCCACCAGAGTGGATGCTGTCTGCACCCATCGTCCTGACCCCAAAAGCCCTGGACTGGACA
GAGAGCGGCTGTACTGGAAGCTGAGCCAGCTGACCCACGGCATCACTGAGCTGGGCCCCCT
ACACCCTGGACAGGGACAGTCTCTATGTCAATGGTTTCACCCATCGGAGCTCTGTACCCAC
CACCAGCACCGGGGTGGTCAGCGAGGAGCCATTCAACCTGCCCGGGCGGCCGCTCGA

FIG. 6

A

TTGGGGNTTTTMGAGCGGCCGCCCGGGCAGGTACCGGGGTGGTCAGCGAGGAGCCATTAC
ACTGAACTTCACCATCAACAACCTGCGGTATGAGGAGAACATGCAGCACCCCTGGCTCCAG
GAAGTTCAACACCACGGAGAGGGTCCTTCAGGGCCTGCTCAGGTCCCTGTTCAAGAGCAC
CAGTGTTGGCCCTCTGTACTCTGGCTGCAGACTGACTTTGCTCAGACTTGAGAAACATGGG
GCAGCCACTGGAGTGGACGCCATCTGCACCTCCGCCTTGATCCCACTGGTCCTGGACTGG
ACAGAGAGCGGCTATACTGGGAGCTGAGCCAGTCCTCTGGCGGNGACNCCNCTT

B

AGCGTGGTCGCGGCCGAGGTCCAGTCGCAGCATGCTCTTTCTCCTGCCCACTGGCACAGTG
AGGAAGATCTCTGCTGTCTAGTGAGAAGGCTGTCATCCACTGAGATGGCAGTCAAAAGTGC
ATTTAATACACCTAACGTATCGAACATCATAGCTTGGCCCAGGTTATCTCATATGTGCTCA
GAACACTTACAATAGCCTGCAGACCTGCCCGGGCGGCCGCTCGA

FIG. 7A and 7B

TGTGGTGTGAACTTCCTGGAGNCAGGGTGACCCATGTCCTCCCCATACTGCAGGTTGGTG
ATGGTGAAGTTGAGGGTGAATGGTACCAGGAGAGGGCCAGCAGCCATAATTGTSGRGCKG
SMGMSSGAGGMWGGWGTYYCWGAGGTTCYRARRTCCACTGTGGAGGTCCCAGGAGTGCT
GGTGGTGGGCACAGAGSTCYGATGGGTGAAACCATTGACATAGAGACTGTTCTGTCCAG
GGTGTAGGGGCCAGCTCTTYRATGYCATTGGYCAGTTKGCTYAGCTCCCAGTACAGCCRC
TCTCKGYYGMGWCCAGSGCTTTTGGGGTCAAGATGATGGATGCAGATGGCATCCACTCCA
GTGGCTGCTCCATCCTTCTCGGACCTGAGAGAGGTCAGTCTGCAGCCAGAGTACAGAGGG
CCAACACTGGTGTCTTTGAATA

FIG. 8

TCGAGCGGCCGCCCCGGGCAGGTCAGGAAGCACATTGGTCTTAGAGCCACTGCCTCCTGGA
TTCCACCTGTGCTGCGGACATCTCCAGGGAGTGCAGAAGGGAAGCAGGTCAAACCTGCTCA
GATCAGTCAGACTGGCTGTTCTCAGTTCTCACCTGAGCAAGGTCAGTCTGCAGCCAGAGTA
CAGAGGGCCAACACTGGTGTTCTTGAACAAGGGCTTGAGCAGACCCTGCAGAACCCTCTTC
CGTGGTGTTGAACTTCCTGGAAACCAGGGTGTTGCATGTTTTCTCATAATGCAAGGTTG
GTGATGG

FIG. 9

Gene Name	Ba1 Probe 1		Probe 2		Gene ID	Probe1		Probe2		Probe1		Probe2	
	Exp Name	P1	P2 Name	P2		Value	Value	Value	Value	S/B	A%	S/B	A%
42100181 (C3)	118 185A Ovary T		S91 Fetal tissue		422X0607	26711	1424	101.3	54	2.0	51		
42100181 (C3)	111 5 S23 Ovary Tumor		S86 Spinal Cord N		422X0628	13559	1179	65.3	68	3.0	68		
42100181 (C3)	111 1 16A Ovary T (met)		415A Aorta N		422X0611	14125	1273	67.3	61	5.6	61		
42100181 (C3)	110 8 105A Ovary T		70A Liver N		422X0606	16121	1488	93.1	43	2.3	43		
42100181 (C3)	151 263A Ovary Tumor		S71 Breast N		422H0624	11326	2235	58.2	68	4.4	68		
42100181 (C3)	116 184A Ovary T (met)		17A Dendritic cell		422X0608	6583	1424	24.5	40	2.1	40		
42100181 (C3)	114 161A Ovary Tumor		S2 Pancreas P1		422H0629	9865	2235	40.9	61	3.6	61		
42100181 (C3)	114 169A Ovary T (met)		161A Ovary N		422H0611	2803	638	22.6	60	7.4	60		
42100181 (C3)	114 261A Ovary Tumor		S10 Skeletal muscle		422H0621	8271	1949	19.5	68	3.6	68		
42100181 (C3)	113 5415 Ovary T (met)		C110 Small intestine		422H0603	2281	407	11.6	60	2.1	60		
42100181 (C3)	115 165A Ovary Tumor		C15 Heart P1		422H0624	3192	1203	19.2	68	4.0	68		
42100181 (C3)	115 165A Ovary Tumor		S19 Kidney P1		422H0627	565	1276	1.6	70	3.9	70		
42100181 (C3)	112 266A Ovary T		S12 Ovary P1		422H0603	2774	1260	14.3	46	2.7	46		
42100181 (C3)	111 9111 Ovary T (SCH)		125A P1		422H0601	1771	837	8.4	56	2.1	56		
42100181 (C3)	119 9185 1 P Ovary T (S)		9185 5 P Ovary T (S)		422H0602	6967	3726	41.5	70	9.2	70		
42100181 (C3)	116 185A Ovary T		C119 Brain N		422H0610	2313	1471	6.2	50	1.9	50		
42100181 (C3)	116 288A Ovary Tumor		C112 Lung N		422H0625	1657	1054	9.7	69	2.9	69		
42100181 (C3)	115 S25 Ovary Tumor		C11 Bone Marrow		422H0619	848	1243	4.5	65	2.7	65		
42100181 (C3)	114 262A Ovary Tumor		S1A Large Intestine		422H0622	3171	2214	16.8	69	3.8	69		
42100181 (C3)	112 186A Ovary T		S10 PBMC Activated		422H0605	630	544	4.2	53	1.9	53		
42100181 (C3)	110 201A Ovary Tumor		S7 Ovary N		422H0626	592	740	3.7	75	2.6	75		
42100181 (C3)	110 195A Ovary T (met)		S6 Stomach P1		422H0620	1197	1237	7.8	65	3.5	65		
42100181 (C3)	115A Ovary T (met)		241A Esophagus N		422H0612	783	797	4.5	95	2.4	95		
			11 Colon P1		422H0609	3470	862	8.9	24	1.7	24		

FIG. 11

Gene Name	Bal Probe 1		Probe 2		GEM		Probe1		Probe2	
	Exp Name	P1	P2 Name	Value	ID	Value	B/B	A%	B/B	A%
-21V0189 (D1)	112 426A Ovary T (met)	112 426A Ovary T (met)	415A Aorta N	8072	422X0611	243	55.2	67	2.4	67
-21V0189 (D1)	111 514 Ovary Tumor	111 514 Ovary Tumor	S56 Spinal Cord N	7167	422X0628	517	42.6	69	2.5	69
-21V0189 (D1)	112 6 429A Ovary T (met)	112 6 429A Ovary T (met)	361A Ovary N	2880	422X0611	227	21.7	64	3.5	64
-21V0189 (D1)	110 485A Ovary T	110 485A Ovary T	S91 Fetal tissue	11711	422X0607	1469	54.0	58	2.2	58
-21V0189 (D1)	113 261A Ovary Tumor	113 261A Ovary Tumor	S71 Breast N	6919	422H0623	952	37.8	69	2.6	69
-21V0189 (D1)	115 515 Ovary Tumor	115 515 Ovary Tumor	C14 Bone Marrow	208	422H0619	1210	2.1	44	2.9	44
-21V0189 (D1)	115 405A Ovary T	115 405A Ovary T	270A Liver F	8676	422H0606	1747	52.3	57	2.6	57
-21V0189 (D1)	115 485A Ovary T (met)	115 485A Ovary T (met)	11 Colon N	3149	422H0609	707	17.4	57	2.0	57
-21V0189 (D1)	114 361A Ovary Tumor	114 361A Ovary Tumor	S10 Skeletal muscle	6332	422H0624	1413	29.1	77	2.9	77
-21V0189 (D1)	114 361A Ovary Tumor	114 361A Ovary Tumor	S2 Pancreas F	7612	422H0609	1899	38.1	79	3.3	79
-21V0189 (D1)	112 482A Ovary T	112 482A Ovary T	C119 Brain F	468	422H0610	1508	3.4	60	2.3	60
-21V0189 (D1)	119 9111 Ovary T (SCH)	119 9111 Ovary T (SCH)	1251 Int F	2500	422H0604	860	12.3	51	2.1	51
-21V0189 (D1)	115 5115 Ovary T (met)	115 5115 Ovary T (met)	C110 Small intestine	1424	422H0604	569	6.7	61	2.1	61
-21V0189 (D1)	111 365A Ovary Tumor	111 365A Ovary Tumor	C15 Heart F	1742	422H0604	1742	11.8	70	2.8	70
-21V0189 (D1)	114 381A Ovary T (met)	114 381A Ovary T (met)	272A Endothelial cells	1083	422H0608	1312	17.0	62	2.0	62
-21V0189 (D1)	119 266A Ovary T	119 266A Ovary T	S22 Ovary F	1390	422H0604	742	8.0	47	2.0	47
-21V0189 (D1)	119 486A Ovary T	119 486A Ovary T	S10 PBMC Tissue	307	422H0605	580	2.6	41	2.0	41
-21V0189 (D1)	117 262A Ovary Tumor	117 262A Ovary Tumor	111A Tissue Intestine	2097	422H0622	1202	11.2	86	2.7	86
-21V0189 (D1)	113 455A Ovary Tumor	113 455A Ovary Tumor	S7 Ovary F	473	422H0626	470	2.9	47	2.0	47
-21V0189 (D1)	111 288A Ovary Tumor	111 288A Ovary Tumor	C111 Lung F	969	422H0625	1094	5.6	72	2.9	72
-21V0189 (D1)	111 201A Ovary Tumor	111 201A Ovary Tumor	S6 Stomach N	750	422H0630	672	5.6	62	2.4	62
-21V0189 (D1)	111 428A Ovary T (met)	111 428A Ovary T (met)	211A Esophagus F	498	422H0612	446	4.2	73	2.1	73
-21V0189 (D1)	110 9485 1P Ovary T (S)	110 9485 1P Ovary T (S)	9485 5P Ovary T (S)	3117	422H0602	3174	16.7	91	8.2	91
-21V0189 (D1)	S22 Ovary Tumor	S22 Ovary Tumor	C19 Kidney N	224	422H0627	409	2.3	48	2.3	48

FIG. 13

33

Gene Name	Bal Probe 1		P1	Probe 3		GEM ID	Probe 1		Probe 2	
	Exp Name	Exp Name		P2 Name	P2 Name		Value	S/B	Value	S/B
42110187 (E11)	1202 426A Ovary T (met)	426A Ovary T (met)	426A Ovary T (met)	426A Ovary T (met)	426A Ovary T (met)	426A Ovary T (met)	5441	36.3	270	2.3
42110187 (E11)	1100 S21 Ovary T (met)	S21 Ovary T (met)	S21 Ovary T (met)	S21 Ovary T (met)	S21 Ovary T (met)	S21 Ovary T (met)	5318	27.1	533	2.3
42110187 (E11)	1103 429A Ovary T (met)	429A Ovary T (met)	429A Ovary T (met)	429A Ovary T (met)	429A Ovary T (met)	429A Ovary T (met)	1252	10.1	150	2.5
42110187 (E11)	157 485A Ovary T	485A Ovary T	485A Ovary T	485A Ovary T	485A Ovary T	485A Ovary T	9507	15.8	1668	2.1
42110187 (E11)	114 4205A Ovary T	4205A Ovary T	4205A Ovary T	4205A Ovary T	4205A Ovary T	4205A Ovary T	5456	31.4	1235	2.0
42110187 (E11)	112 465A Ovary T (met)	465A Ovary T (met)	465A Ovary T (met)	465A Ovary T (met)	465A Ovary T (met)	465A Ovary T (met)	1814	11.9	438	2.0
42110187 (E11)	111 482A Ovary T	482A Ovary T	482A Ovary T	482A Ovary T	482A Ovary T	482A Ovary T	409	2.6	1259	2.0
42110187 (E11)	116 461A Ovary T (met)	461A Ovary T (met)	461A Ovary T (met)	461A Ovary T (met)	461A Ovary T (met)	461A Ovary T (met)	1733	17.7	1036	2.3
42110187 (E11)	114 464A Ovary T (met)	464A Ovary T (met)	464A Ovary T (met)	464A Ovary T (met)	464A Ovary T (met)	464A Ovary T (met)	4163	23.0	1239	2.3
42110187 (E11)	115 5115 Ovary T (met)	5115 Ovary T (met)	5115 Ovary T (met)	5115 Ovary T (met)	5115 Ovary T (met)	5115 Ovary T (met)	1565	8.8	637	2.1
42110187 (E11)	114 461A Ovary T (met)	461A Ovary T (met)	461A Ovary T (met)	461A Ovary T (met)	461A Ovary T (met)	461A Ovary T (met)	1455	14.9	1630	2.1
42110187 (E11)	114 481A Ovary T (met)	481A Ovary T (met)	481A Ovary T (met)	481A Ovary T (met)	481A Ovary T (met)	481A Ovary T (met)	2667	13.4	1270	2.0
42110187 (E11)	11 522 Ovary T (met)	522 Ovary T (met)	522 Ovary T (met)	522 Ovary T (met)	522 Ovary T (met)	522 Ovary T (met)	291	2.4	605	2.5
42110187 (E11)	11 486A Ovary T	486A Ovary T	486A Ovary T	486A Ovary T	486A Ovary T	486A Ovary T	480	4.2	687	2.0
42110187 (E11)	116 9131 Ovary T (SCH)	9131 Ovary T (SCH)	9131 Ovary T (SCH)	9131 Ovary T (SCH)	9131 Ovary T (SCH)	9131 Ovary T (SCH)	1622	7.9	984	2.2
42110187 (E11)	115 262A Ovary T (met)	262A Ovary T (met)	262A Ovary T (met)	262A Ovary T (met)	262A Ovary T (met)	262A Ovary T (met)	1892	10.1	1235	2.0
42110187 (E11)	11 428A Ovary T (met)	428A Ovary T (met)	428A Ovary T (met)	428A Ovary T (met)	428A Ovary T (met)	428A Ovary T (met)	604	4.1	908	2.6
42110187 (E11)	11 435A Ovary T (met)	435A Ovary T (met)	435A Ovary T (met)	435A Ovary T (met)	435A Ovary T (met)	435A Ovary T (met)	236	2.7	325	2.6
42110187 (E11)	11 201A Ovary T (met)	201A Ovary T (met)	201A Ovary T (met)	201A Ovary T (met)	201A Ovary T (met)	201A Ovary T (met)	382	2.9	501	1.9
42110187 (E11)	110 9185 1 p Ovary T (S)	9185 1 p Ovary T (S)	9185 1 p Ovary T (S)	9185 1 p Ovary T (S)	9185 1 p Ovary T (S)	9185 1 p Ovary T (S)	558	4.2	677	2.0
42110187 (E11)	484A Ovary T (met)	484A Ovary T (met)	484A Ovary T (met)	484A Ovary T (met)	484A Ovary T (met)	484A Ovary T (met)	2582	15.1	2493	2.3
42110187 (E11)	266A Ovary T	266A Ovary T	266A Ovary T	266A Ovary T	266A Ovary T	266A Ovary T	2261	12.5	562	1.7
42110187 (E11)	S25 Ovary T (met)	S25 Ovary T (met)	S25 Ovary T (met)	S25 Ovary T (met)	S25 Ovary T (met)	S25 Ovary T (met)	1739	9.7	965	2.2
42110187 (E11)							283	2.2	845	2.2

FIG. 14

11721-1

ACGGTTTCAATGGACACTTTTATTGTTTACTTAATGGATCATCAATTTTGTCTCACTACCTA
CAAAATGGAATTTTCATCTTGTTCATGCTGAGTAGTGAAACAGTGACAAAGCTAATCATAA
TAACCTACATCAAAAGAGAACTAAGCTAACACTGCTCACTTTCTTTTAAACAGGCAAAATA
TAAATATATGCACTCTAXAATGCACAATGGTTTAGTCACTAAAAAATTCAAATGGGATCTT
GAAGAATGTATGCAAATCCAGGGTGCAGTGAAGATGAGCTGAGATGCTGTGCAACTGTTT
AAGGGTTCTTGGCACTGCATCTCTTGGCCACTAGCTGAATCTTGACATGGAAGGTTTATAGC
TAATGCCAAGTGGAGATGCAGAAAATGCTAAGTTGACTTAGGGGCTGTGCACAGGAACTA
AAAGGCAGGAAAGTACTAAATATTGCTGAGAGCATCCACCCCAGGAAGGACTTTACCTTC
CAGGAGCTCCAACTGGCACCACCCCAGTGCTCACATGGCTGACTTTATCCTCCGTGTTT
CATTTGGCACAGCAAGTGGCAGTG

11721-2

AAGGCTGGTGGGTTTTTGATCCTGCTGGAGAACCTCCGCTTTCATGTGGAGGAAGAAGGG
AAGGGAAGATGCTTCTGGGAACAAGGTTAAAGCCGAGCCAGCCAAAATAGAAGCTTTC
CGAGCTTCACTTTCCAAGCTAGGGGATGTCTATGTCAATGATGCTTTTGGCACTGCTCACA
GAGCCACAGCTCCATGGTAGGAGTCAATCTGCCACAGAAGGCTGGTGGGTTTTTGATGA
AGAAGGAGCTGAACTACTTTGCAAAGGCCTTGGAGAGCCCAGAGCGACCTTTCCTGGCCA
TCCTGGGCGGAGCTAAAGTTGCAGACAAGATCCAGCTCATCAATAATATGCTGGACAAAG
TCAATGAGATGATTATTGGTGGTGGAAATGGCTTTTACCTTCCTTAAGGTGCTCAACAACAT
GGAGATTGGCACTTCTCTGTTTGATGAAGAGGGAGCCAAGATTGTCAAAGACCTAATGTCC
AAAGCTGAGAAGAATGGTGTGAAGATTACCTTGCCTGTTGACTTTGTCACTGCTGACAAGT
TTGATGA

11724-1

TTTGTTCTTACATTTTTCTAAAGAGTTACTTAAATCAGTCAACTGGTCTTTGAGACTCTTA
AGTTCTGATTCCAACTTAGCTAATTCATTCTGAGAACTGTGGTATAGGTGGCGTGTCTCTTC
TAGCTGGGACAAAAGTTCTTTGTTTTCCCCCTGTAGAGTATCACAGACCTTCTGCTGAAGC
TGGACCTCTGTCTGGGCCTTGGACTCCCAATCTGCTTGTCTGTTCAAGCCTGGAAATGTT
AATCTTTAATTCTTCCATATGGATGGACATCTGTCTAAGTTGATCCTTTAGAACACTGCAAT
TATCTTCTTTGAGTCTAATTTCTTCTTTGCTTTGAATCGCATCACTAAACTTCCTCTCCC
ATTTCTTAGCTTCATCTATCACCTGTACGATCATCTGGAGGGAAGACATGCTCTTAGTA
AAGGCTGCAAGCTGGGTACAGTACTGTCCAAGTTTTCTGAAGTTGCTGAACCTTCCTGT
CTTTCTTGTTCAAAGTAACCTGAATCTCTCCAATTGTCTCTTCCAAGTGGACTTTTCTCTGC
GCAAAGCATCCAG

11724-2

TCATTGCCTGTGATGGCATCTGGAATGTGATGAGCAGCCAGGAAGTTGTAGATTTTCATTCA
ATCAAAGGATTTCAGCATGTGGTGGAAAGCTGTGAGGCAAGAGAAACAAGAACTGTATGGCA
AGTTAAGAAGCACAGAGGCAAAACAAGAAGGAGACAGAAAAGCAGTTGCAGGAAGCTGAG
CAAGAAATGGAGGAAATGAAAGAAAAGATGAGAAAGTTTGCTAAATCTAAACAGCAGAA
AATCCTAGAGCTGGAAGAAGAGAATGACCGGCTTAGGGCAGAGGTGCACCCTGCAGGAG
ATACAGCTAAAGAGTGTATGGAAACACTTCTTTCTTCCAATGCCAGCATGAAGGAAGAAC
TTGAAAGGGTCAAAATGGAGTATGAAACCCTTTCTAAGAAGTTTCAGTCTTTAATGTCTGA
GAAAGACTCTCTAAGTGAAGAGGTTCAAGATTTAAAGCATCAGATAGAAGGTAATGTATC
TAAACAAGCTAACCTAGAGGCCACCGAGAAACATGATAACCAAACGAATGTCACTGAAGA
GGGAACACAGTCTATACCAGGT

11725-32-1.2

AAGCCAATAATCACCATTTATTACTTAATATATGCCAACCACTGTACTTGGCAGTTCACAA
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CAGCTCAAGTAAGTTAGGAACTGAGCCAAGTATACACAGAATACGAAGTGGCAAAACTA
GAAGGAAAGACTGACACTGCTATCTGCTGGCCTCCAGTGTCTGGCTCTTTTCACACGGGT
CAATGTCTCCAGCGCTGCTGCTGCTGCTGCATTACCATGCCCTCATTGTTTTCTTCCTCTG
GTGTTCAACTGCATCCTTCAAAGAATCTAACTCATTCCAGAGACCACTTATTTCTTTCTCTC
TTTCTGAAATTACTTTTAATAATTCTTCATGAGGGGGAAAAGAAGATGCCTGTTGGTAGTT
TTGTTGTTTAAGCTGCTCAATTTGGGACTTAAACAATTTGTTTTATCTTGTACATCCTGTA
ACAGCTGTGTTTTGCTAGAAAGATCACTCTCCCTCTCTTTTAGCATGGCTTCTAACCTCTTC
AATTCATTTTCTTTTCTTTCAACACAATCTCAAGTTCTTCAAAGTGTGATGCAGAAGAGGC
CTCTTTCAAGTTATGTTGTGCTACTTCTGAACATGTGCTTTTAAAGATTCAATTTCTTCTTG
AAGATCCTGTAACCACTTCCCTGTATTGGCTAGGTCTTCTCTTTCTCTTCCAAAACAGCCT
TCATGGTATTCATCTGTTCCCTCTTTTCTTTTAATAAGTTCAGGAGCTTCAGAAC

11726-1&2

CAAGCTTTTTTTTTTTTTTAAAAAGTGTTAGCATTAATGTTTTATTGTCACGCAGATGGCA
ACTGGGTTTATGTCTTCATATTTTATATTTTGTAAATTAATAAATTACAAGTTTAAATA
GCCAATGGCTGGTTATATTTTCAGAAAACATGATTAGACTAATTCATTAATGGTGGCTTCA
AGCTTTTCCCTTATTGGCTCCAGAAAATTCACCCACCTTTTGTCCCTTCTTAAAAAACTGGA
TGTGGCATGCATTTGACTTCACACTCTGAAGCAACATCCTGACAGTCATCCACATCTACTT
CAAGGAATATCACGTTGGAATACTTTTCAGAGAGGGGAATGAAAGAAAGGCTTGATCATT
TGCAAGGCCACACACGTTGGCTGAGAAGTCAACTACTACAAGTTTATCACCTGCAGCGTC
CAAGGCTTCTGAAAAGCAGTCTTGCTCTCGATCTGCTTCACCATCTTGGCTGCTGGAGTCT
GACGAGCGGCTGTAAGGACCGATGGAAATGGATCCAAAGCACCAACAGAGCTTCAAGA
CTCGCTGCTTGGCTTGAATTCGGATCCGATATCGCCATGGCCT

11727-1&2

AAGTGTTAGCATTAATGTTTTATTGTCACGCAGATGGCAACTGGGTTTATGTCTTCATATTT
TATATTTTGTAAATTAATAAATMCAAGTTTTAAATAGCCAATGGCTGGTTATATTTTC
AGAAAACATGATTAGACTAATTCATTAATGGTGGCTTCAAGCTTTTCTTATTGGCTCCAG
AAAATTCACCCACCTTTTGTCCCTTCTTAAAAAACTGGAATGTTGGCATGCATTTGACTTCA
CACTCTGAAGCAACATCCTGACAGTCATCCACATCTACTTCAAGGAATATCACGTTGGAAT
ACTTTTCAGAGAGGGGAATGAAAGAAAGGCTTGATCATTGCAAGGCCACACACGTTGG
CTGAGAAGTCAACTACTACAAGTTTATCACCTGCAGCGTCCAAGGCTTCTGAAAAGCAGT
CTTGCTCTCGATCTGCTTCACCATCTTGGCTGCTGGAGTCTGACGAGCGGCTGTAAGGACC
GATGGAAATGGATCCAAAGCACCAACAGAGCTTCAAGACTCGCTGCTTGGCATGAATTC
GGATCCGA

11728.1.40.19.19

TACAAACTTTATTGAAACGCACACGCGCACACACACAAACACCCCTGTGGATAGGGAAAA
GCACCTGGCCACAGGGTCCACTGAAACGGGGAGGGGATGGCAGCTTGTAAATGTGGCTTTT
GCCACAACCCCTTCTGACAGGGAAGGCCTTAGATTGAGGCCCCACCTCCCATGGTGATGG
GGAGCTCAGAATGGGGTCCAGGGAGAATTTGGTTAGGGGGAGGTGCTAGGGAGGCATGA
GCAGAGGGCACCCTCCGAGTGGGGTCCCGAGGGCTGCAGAGTCTTCAGTACTGTCCCTCAC
AGCAGCTGTCTCAAGGCTGGGTCCCTCAAAGGGGCGTCCAGCGCGGGGCCTCCCTGCGC
AAACACTTGGTACCCCTGGCTGCGCAGCGGAAGCCAGCAGGACAGCAGTGGCGCCGATCA
GCACAACAGACGCCCTGGCGGTAGGGACAGCAGGCCCCAGCCCTGTCGGTTGTCTCGGCAG
CAGGTCTGTTATCATGGCAGAAGTGTCTTCCACACTTCACGTCCTTCACACCCACGTG
AXGGCTACXGGCCAGGAAG

11728.2.40.19.19

CCCGTGGGTGCCATCCACGGAGTTGTTACCTGATCTTTGGAAGCAGGATCGCCCGTCTGCA
CTGCAGTGGAAGCCCCGTGGGCAGCAGTGATGGCCATCCCCGCATGCCACGGCCTCTGGG
AAGGGGCAGCAACTGGAAGTCCCTGAGACGGTAAAGATGCAGGAGTGGCCGGCAGAGCA
GTGGGCATCAACCTGGCAGGGGCCACCCAGATGCCTGCTCAGTGTTGTGGGCCATTTGTCC
AGAAGGGGACGGCAGCAGCTGTAGCTGGCTCCTCCGGGGTCCAGGCAGCAGGCCACAGGG
CAGAACTGACCATCTGGGCACCGCGTTCCAGCCACCAGCCCTGCTGTTAAGGCCACCCAGC
TCACCAGGGTCCACATGGTCTGCCTGCGTCCGACTCCGCGGTCCTTGGGGCCCTGATGGTTC
TACCTGCTGTGAGCTGCCCAGTGGGAAGTATGGCTGCTGCCAATGCCAACGCCACCTGCT
GCTCCGATCACCTGCACTGCTGCCCAAGACACTGTGTGTGACCTGATCCAGAGTAAGTGC
CTCTCCAAGGAGAACG

11730-1

GAATCACCTTTCTGGTTTAGCTAGTACTTTGTACAGAACAATGAGGTTTCCCACAGCGGAG
TCTCCCTGGGCTCTGTTTGGCTCTCGGTAAGGCAGGCCTACACCTTTTCTCTCTCTATGG
AGAGGGGAATATGCATTAAGGTGAAAAGTCACCTTCCAAAAGTGAGAAAGGGATTGATT
GCTGCTTCAGGACTGTGGAATTATTTGGAATGTTTACAAATGGTTGCTACAAAACAACAA
AAAAGGTAATTACAAAATGTGTACATCACAACATGCTTTTTAAAGACATTATGCATTGTGC
TCACATTCCCTTAAATGTTGTTTCCAAAGGTGCTCAGCCTCTAGCCCAGCTGGATTCTCCGG
GAAGAGGCAGAGACAGTTTGGCGAAAAAGACACAGGGAAGGAGGGGGTGGTGAAAGGA
GAAAGCAGCCTTCCAGTTAAAGATCAGCCCTCAGTTAAAGGTCAGCTTCCCGCAXGCTGGC
CTCAXGCGGAGTCTGGGTGAGAGGGAGGAGCAGCAGCAGGCTGGGACTGGGGCGT

11730-2

AACCGGAGCGCGAGCAGTAGCTGGGTGGGCACCATGGCTGGGATCACCACCATCGAGGCG
GTGAAGCGCAAGATCCAGGTTCTGCAGCAGCAGGCAGATGATGCAGAGGAGCGAGCTGA
GCGCCTCCAGCGAGAAGTTGAGGGAGAAAGGCGGGCCCGGGAACAGGCTGAGGCTGAGG
TGGCCTCCTTGAACCGTAGGATCCAGCTGGTTGAAGAAGAGCTGGACCGTGCTCAGGAGC
GCCTGGCCACTGCCCTGCAAAAGCTGGAAGAAGCTGAAAAAGCTGCTGATGAGAGTGAGA
GAGGTATGAAGGTTATTGAAAACCGGGCCTTAAAAGATGAAGAAAAGATGGAACCTCCAG
GAAATCCAACCTCAAGAAGCTAAGCACATTGCAGAAGAGGCAGATAGGAAGTATGAAGA
GGTGGCTCGTAAGTTGGTGATCATTGAAGGAGACTTGGAACGCACAGAGGAACGAGCTGA
GCTGGCAGAGTCCCGTTGCCGAGAGATGGATGAGCAGATTAGACTGATGGACCAGAACCT
GAAGTGTCTGAGTGC

11732.1contig

GAGAACTTGGCCTTTATTGTGGGCCCAGGAGGGCACAAAGGTCAGGAGGCCCAAGGGAGG
GATCTGGTTTTCTGGATAGCCAGGTCATAGCATGGGTATCAGTAGGAATCCGCTGTAGCTG
CACAGGCCCTCACTTGCTGCAGTTCGCGGGGAGAACACCTGCACTGCATGGCGTTGATGACCT
CGTGGTACACGACAGAGCCATTGGTGCAGTGCAAGGGCACGCGCATGGGCTCCGTCCTCG
AGGGCAGGCAGCAGGAGCATTGCTCCTGCACATCCTCGATGTCAATGGAGTACACAGCTT
TGCTGGCACACTTTCCTGGCAGTAATGAATGTCCACTTCCTCTTGGGACTTACAATCTCCC
ACTTTGATGTACTGCACCTTGGCTGTGATGTCTTTGCAATCAGGCTCCTCACATGTGTCACA
GCAGGTGCCTGGAATTTTACGATTTTGCCTCCTTCAGCCAGACACTTGTGTTTCATCAAATG
GTGGGCAGCCCGTGACCCTCTTCTCCCAGATGTACTCTCCTCT

11732.2contig

GCCTGGACCTTGCCGGATCAGTGCCACACAGTGACTTGCTTGGCAAATGGCCAGACCTTGC
TGCAGAGTCATCGTGTCAATTGTGACCATGGACCCCGGCCTTCATGTGCCAACAGCCAGTC
TCCTGTTTCGGGTGGAGGAGACGTGTGGCTGCCGCTGGACCTGCCCTTGTGTGTGCACGGGC
AGTTCCACTCGGCACATCGTCACCTTCGATGGGCAGAATTTCAAGCTTACTGGTAGCTGCT
CCTATGTCATCTTTCAAAACAAGGAGCAGGACCTGGAAGTGCTCCTCCACAATGGGGCCTG
CAGCCCCGGGGCAAAACAAGCCTGCATGAAGTCCATTGAGATTAAGCATGCTGGCGTCTC
TGCTGAGCTGCACAGTAACATGGAGATGGCAGTGGATGGGAGACTGGTCCTTGCCCCGTA
CGTTGGTGAAAACATGGAAGTCAGCATCTACGGCGCTATCATGTATGAAGTCAGGTTTACC
CATCTTGGCCACATCCTCACATACACCGCCXCAAAACAACGAGTT

11735-1-2

AGATCAACCTCTGCTGGTCAGGAGGAATGCCTTCCTTGTCTTGGATCTTTGCTTTGACGTTT
TCGATAGTRWCAaCTKKRYTSRAMSKMAAGKGYRATGRWMTTKSYWGWASYKTMWWM
RSGRARAYTTaGaCAYCCCMCCTCWgAGaCGSAGKACCARGTGCAgAgGTGGACTCTTTCTG
GATGTTGTAGTCAGACAGGGTGCGTCCATCTTCCAGCTGTTTCCCAGCAAAGATCAACCTC
TGCTGATCAGGAGGGATGCCTTCCTTATCTTGGATCTTTGCCTTGACATTCCTCGATGGTGT
ACTGGGCTCCACCTCGAGGGTGATGGTCTTACCAGTCAGGGTCTTCACGAAGATYTGATC
CCACCTCTGAGACGGAGCACCAGGTGCAGGGTRGACTCTTTCTGGATGTTGTAGTCAGACA
GGGTGCGYCCATCTTCCAGCTGcTTTCCSaGCAAAGATCAACCTCTGCTGGTCAGGAGGRAT
GCCTTCCTTGTCTYGGATCTTTGCTYTGACRTTCTCRATGGTGTCACTCGGCTCCACTTCGA
GAGTGATGGTCTTACCAGTCAGGGTCTTCACGAAGATCTGCATCCCACCTCTAA

11740.2.contig

AAGTCACAAACAGACAAAGATTATTACCAGCTGCAAGCTATATTAGAAGCTGAACGAAGA
GACAGAGGTCATGATTCTGAGATGATTGGAGACCTTCAAGCTCGAATTACATCTTTACAAG
AGGAGGTGAAGCATCTCAAACATAATCTCGAAAAAGTGGAAGGAGAAAGAAAAGAGGCT
CAAGACATGCTTAATCACTCAGAAAAGGAAAAAGAATAATTTAGAGATAGATTTAAACTAC
AAACTTAAATCATTACAACAACGGTTAGAACAAGAGGTAAATGAACACAAAGTAACCAAA
GCTCGTTTAACTGACAAACATCAATCTATTGAAGAGGCAAAGTCTGTGGCAATGTGTGAG
ATGGAAGAAAAAGCTGAAAGAAAGAGAAAGCTCGAGAGAAGGCTGAAAATCGGGTTGT
TCAGATTGAGAAACAGTGTTCATGCTAGACGTTGATCTGAAGCAATCTCAGCAGAACT
AGAACATTTGACTGGAAATAAAGAAAGGATGGAGGATGAAGTTAAGAATCTA

11765.2&64.2.contig

CGCCTCCACCATGTCCATCAGGGTGACCCAGAAGTCCTACAAGGTGTCCACCTCTGGCCCC
CGGGCCTTCAGCAGCCGCTCCTACACGAGTGGGCCCCGGTTCCCGCATCAGCTCCTCGAGCT
TCTCCCGAGTGGGCAGCAGCAACTTTCGCGGTGGCCTGGGCGGCGGCTATGGTGGGGCCA
GCGGCATGGGAGGCATCACCAGCTTACGGTCAACCAGAGCCTGCTGAGCCCCCTTGTCCT
GGAGGTGGACCCCAACATCCAGGCCGTGCGCACCCAGGAGAAGGAGCAGATCAAGACCT
CAACAACAAGTTTGCTCCTTCATAGACAAGGTACGGTTCCTGGAGCAGCAGAACAAGAT
GCTGGAGACCAAGTGGAGCCTCCTGCAGCAGCAGAAGACGGCTCGAAGCAACATGGACA
ACATGTTTCGAGAGCTACATCAACARCCTTAGGCGGCAGCTGGAGACTCTGGGCCAGGAGA
AGCTGAAGCTGGAGGCGGAGCTTGGCAACATGCAGGGGCTGGTGGAGGACTTCAAGAAC
AAGTATGAGGATGAGATCAATAAGCGTACAGAGATGGAGAACGAATTTGTCCTCATCAAG
AAGGATGTGGATGAAGCTTACATGAACAAGGTAGAGCTGGAGTCTCGCCTGGAAGGGCTG
ACCGACGAGATCAACTTCCTCAGGCAGCTGTATGAAGAGGAGATCCGGGAGCTGCAGTCC
CAGATCTCGGACACATCTGTGGTGTCTGTCATGGACAACAGCCGCTCCCTGGACATGGACA
GCATCTTGTGAGGTCAAGGCACAGTACGAGGATATTGCCAACCGCAGCCGGGCTGAGG
CTGAGAGCATGTACCAGGTCAAGTATGAGGAGCTGCAGAGCCTGGCTGGGAAGCACGGGG
ATGACCTGCGGCGCACAAAGACTGAGATCTCTGAGATGAACCCGGAACATCAGCCCGGCT
XCAGGCTGAGATTGAGGGCCTCAAAGGCCAGAXGGCTTXCCTGGAXGXCCGCCAT

11767.2.contig

CCCGGAGCCAGCCAACGAGCGGAAAATGGCAGACAATTTTTCGCTCCATGATGCGTTATCT
GGGTCTGGAAACCCAAACCCTCAAGGATGGCCTGGCGCATGGGGGAACCAGCCTGCTGGG
GCAGGGGGCTACCCAGGGGCTTCTATCCTGGGGCCTACCCCGGGCAGGCACCCCAAGG
GCTTATCCTGGACAGGCACCTCCAGGCGCCTACCCTGGAGCACCTGGAGCTTATCCCGGAG
CACCTGCACCTGGAGTCTACCCAGGGCCACCCAGCGGCCCTGGGGCCTACCCATCTTCTGG
ACAGCCAAGTGGCACCGGAGCCTACCCTGCCACTGGGCCCTATGGCGCCCCTGCTGGGCCA
CTGATTGTGCCTTATAACCTGCCTTTGCCTGGGGGAGTGGTGCCTCGCATGCTGATAACAA
TTCTGGGCACGGTGAAGCCCAATGCAAAACAGAATTGCTTTAGATTTCCAAAGAGGGAATG
ATGTTGCCTTCCACTTTAACCCACGCTTCAATGAGAACAACAGGAGAGTCATTGGTTGCAA
TACAAAGCTGGATAA

11768-1&2

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GGAAACTTAGACACCCCCCTCRAgCGMAGKACCARGTGCARAgGTGGACTCTTTCTGGAT
GTTGTAGTCAGACAGGGTRCGWCCATCTTCCAGCTGTTTYCCRGCAAAGATCAACCTCTGC
TGATCAGGAGGRATGCCTTCTTATCTTGGATCTTTGCCTTGACATTCTCGATGGTGTCACT
GGGCTCCACCTCGAGGGTGATGGTCTTACCAGTCAGGGTCTTCACGAAGATYTGATCCCA
CCTCTGAGACGGAGCACCAGGTGCAGGGTRGACTCTTTCTGGATGTTGTAGTCAGACAGG
GTGCGYCCATCTTCCAGCTGcTTTCCSaGCAAAGATCAACCTCTGCTGGTCAGGAGGRATGC
CTTCTTGTCTYTGATCTTTGCTTACRTTCTCAATGGTGTCACTCGGCTCCACTTCGAGA
GTGATGGTCTTACCAGTCAGGGTCTTCACGAAGATCTGCATCCACCTCTAAGACGGAGCA
CCAGGTGCAGGGTGGACTCTTTCTGGATGgTTGTAGTCAGACAGGGTGCGTCCATCTTCCA
GCTGTTTCCCAGCAAAGATCAACCT

11768-1&2-11735-1&2

AGGTTGATCTTTGCTGGGAAACAGCTGGAAGATGGACGCACCCTGTCTGACTACAAcCATC
CAGAAAGAGTCCACCCTGCACCTGGTGCTCCGTCTTAGAGGTGGGATGCAGATCTTCGTGA
AGACCCTGACTGGTAAGACCATCACTCTCGAAGTGGAGCCGAGTGACACCATTGAGAAAYG
TCAARGCAAAGATCCARGACAAGGAAGGCATYCCTCCTGACCAGCAGAGGTTGATCTTTG
CtSGGAAAgCAGCTGGAAGATGGRCGCACCCTGTCTGACTACAACATCCAGAAAGAGTCYA
CCCTGCACCTGGTGCTCCGTCTCAGAGGTGGGATGTCARATCTTCGTGAAGACCCTGACTGG
TAAGACCATCACCCCTCGAGGTGGAGCCCAGTGACACCATCGAGAATGTCAAGGCAAAGAT
CCAAGATAAGGAAGGCATCCCTCCTGATCAGCAGAGGTTGATCTTTGCTGGGAAACAGCT
GGAAGATGGACGCACCCTGTCTGACTACAACATCCAGAAAGAGTCCACcTYTGCACYTGGT
MCTBCGtCTYAGAGGKGGGRTGcaaaTCTWMGTKWagaCaCtCaCTKKYAAGRYYaTCAMCMWt
gAKKTCgAKYSCASTKWCaTWTcRAKAAMGTyrWWGCAWagaTCCMAGACAAGGAAGGC
ATTCTCCTGACCAGCAGAGGTTGATCT

11769.1.contig

ATGGAGTCTCACTCTGTGCGACCAGGCTGGAGCGCTGTGGTGCGATATCGGCTcACTGCAGT
CTCCACTTCTGGGTTCAAGCGATCCTCCTGCCTCAGCCTCCCAGTAGCTGGGACTACAG
GCAGGCGTCACCATAATTTTTGTATTTTAGTAGAGACATGGTTTCGCCATGTTGGCTGGG
CTGGTCTCGAACTCCTGACCTCAAGTGATCTGTCTGGCCTCCCAAAGTGTTGGGATTACA
GGCGAAAGCCAACGCTCCCGGCCAGGGAACAACCTTTAGAATGAAGGAAATATGCAAAAG
AACATCACATCAAGGATCAATTAATTACCATCTATTAATTACTATATGTGGGTAATTATGA
CTATTTCCCAAGCATTCTACGTTGACTGCTTGAGAAGATGTTTGTCTGCATGGTGGAGAG
TGGAGAAGGGCCAGGATTCTTAGGTT

11769.2.contig

AGCGCGGTCTTCCGGCGCGAGAAAGCTGAAGGTGATGTGGCCGCCCTCAACCGACGCATC
CAGCTCGTTGAGGAGGAGTTGGACAGGGCTCAGGAACGACTGGCCACGGCCCTGCAGAAg
CTGGAGGAGGCAGAAAAAGCTGCAGATGAGAGTGAGAGAGGAATGAAGGTGATAGAAAA
CCGGGCCATGAAGGATGAGGAGAAGATGGAGATTcAGGAGATGCAGCTCAAAGAGGCCA
AGCACATTGCGGAAGAGGCTGACCGCAAATACGAGGAGGTAGCTCGTAAGCTGGTCATCC
TGGAGGGTGAGCTGGAGAGGGCAGAGGAGCGTGCGGAGGTGTCTGAACTAAAATGTGGT
GACCTGGAAGAAGAACTCAAGAATGTTACTAACAATCTGAAATCTCTGGAGGCTGCATCT
GAAAAGTATTCTGAAAAGGAGGACAAATATGAAGAAGAAATTAACCTTCTGTCTGACAAA
CTGAAAGAGGCTGAGACCCGTGCTGAATTTGCAGAGAGAACGGTTGCAAAACTGGAAAAG
ACAATTGATGACCTGGAAGAGAACTTGCCACG

11770.1.contig

GTGCACAGGTCCCATTTATTGTAGAAAATAATAATAATTACAGTGATGAATAGCTCTTCTT
AAATTACAAAACAGAAACCACAAAGAAGGAAGAGGAAAAACCCCAGGACTTCCAAGGGT
GAAGCTGTCCCCTCCTCCCTGCCACCCTCCCAGGCTCATTAGTGCTTGGAAAGGGGCAGA
GGACTCAGAGGGGATCAGTCTCCAGGGGCCCTGGGCTGAAGCGGGTGAGGCAGAGAGTCC
TGAGGCCACAGAGCTGGGCAACCTGAGCCGCTCTCTGGCCCCCTCCCCCACTGCCCCA
AACCTGTTTACAGCACCTTCGCCCCCTCCCCTCTAAACCCGTCCATCCACTCTGCACTTCCCA
GGCAGGTGGGTGGGCCAGGCCTCAGCCATACTCCTGGGCGCGGGTTTCGGTGAGCAAGGC
ACAGTCCCAGAGGTGATATCAAGGCCT

11770.2.contig

GCAAGGAAGTGGTCTGCTCACACTTGCTGGCTTGCGCATCAGGACTGGCTTTATCTCCTGA
CTCACGGTGCAAAGGTGCACTCTGCGAACGTTAAGTCCGTCGCCAGCGCTTGAATCCTAC
GGCCCCACAGCCGGATCCCTCAGCCTTCCAGGTCTCAACTCCCGTGGACGCTGAACAA
TGGCCTCCATGGGGCTACAGGTAATGGGCATCGCGCTGGCCGTCCTGGGCTGGCTGGCCGT
CATGCTGTGCTGCGCGCTGCCCATGTGGCGCGTGACGGCCTTCATCGGCAGCAACATTGTC
ACCTCGCAGACCATCTGGGAGGGCCTATGGATGAACTGCGTGGTGCAGAGCACCGGCCAG
ATGCAGTGCAAGGTGTACGACTCGCTGCTGGCACTGCCGAGGACCTGCAGGCGGCCCGC
GCCCTCGTCATCATCA

11773.1.contig

TGCAAAAGGGACACAGGGGTTCAAAAATAAAAAATTTCTCTTCCCCCTCCCCAAACCTGTAC
CCCAGCTCCCCGACCACAACCCCCCTTCTCCCCGGGGAAAAGCAAGAAGGAGCAGGTGTG
GCATCTGCAGCTGGGAAGAGAGAGGGCCGGGGAGGTGCCGAGCTCGGTGCTGGTCTCTTTC
CAAATATAAATACXTGTGTGAGAAGTGGAAAATCCTCCAGCACCCACCACCAAGCACTCT
CCGTTTTCTGCCGTGTTTGGAGAGGGGCGGGGGCAGGGGCGCCAGGCACCGGTGGCT
GCGGTCTACTGCATCCGCTGGGTGTGACCCCGGAGCCTCCTGCTGCTCATTGTAGAAGA
GATGACACTCGGGGTCCCCCGGATGGTGGGGGCTCCCTGGATCAGCTTCCCGGTGTTGGG
GTTACACACACCAGCACTCCCCACGCTGCCCGTTCAGAGACATCTTGCACTGTTTGAGGTTG
TACAGGCCATGCTTGTACAGTTG

11778.1.contig

GGGTTGGAGGGACTGGTCTTTATTTCAAAAAGACACTTGTCATATTTCAGTATCAAAACA
GTTGCACTATTGATTTCTCTTCTCCCAATCGGCCCAAAGAGACCACATAAAAGGAGAGT
ACATTTTAAGCCAATAAGCTGCAGGATGTACACCTAACAGACCTCCTAGAAACCTTACCAG
AAAATGGGGACTGGGTAGGGAAGGAACTTAAAAGATCAACAACTGCCAGCCCACGGA
CTGCAGAGGCTGTACAGCCAGATGGGGTGGCCAGGTGCCACAAACCCAAAGCAAAGTT
TCAAAAATAATATAAAATTTAAAAAGTTTTGTACATAAGCTATTCAAGATTTCTCCAGCACT
GACTGATACAAAGCACAAATTGAGATGGCACTTCTAGAGACAGCAGCTTCAAACCCAGAAA
AGGGTGATGAGATGAGTTTACATGGCTAAATCAGTGGCAAAAACACAGTCTTCTTTCTTT
CTTTCTTTCAAGGAGGCAGGAAAGCAATTAAGTGGTCACCTCAACATAAGGGGGACATGA
TCCATTCTGTAAGCAGTTGTGAAGGGG

11778-2&30-2

CAGGAACCGGAGCGCGAGCAGTAGCTGGGTGGGCACCATGGCTGGGATCACCACCATCGA
GGCGGTGAAGCGCAAGATCCAGGTTCTGCAGCAGCAGGCAGATGATGCAGAGGAGCGAG
CTGAGCGCCTCCAGCGAGAAGTTGAGGGAGAAAGGCGGGCCCGGGAACAGGCTGAGGCT
GAGGTGGCCTCCTTGAACCGTAGGATCCAGCTGGTTGAAGAAGAGCTGGACCGTGCTCAG
GAGCGCCTGGCCACTGCCCTGCAAAAGCTGGAAGAAGCTGAAAAAGCTGCTGATGAGAGT
GAGAGAGGTATGAAGGTTATTGAAAACCGGCCCTTAAAAGATGAAGAAAAGATGGAACCT
CCAGGAAATCCAACCTCAAGAAGCTAAGCACATTGCAGAAGAGGCAGATAGGAAGTATG
AAGAGGTGGCTCGTAAGTTGGTGATCATTGAAGGAGACTTGAACGCACAGAGGAACGAG
CTGAGCTGGCAGAGTCCCGTTGCCGAGAGATGGATGAGCAGATTAGACTGATGGACCAGA
ACCTGAAGTGTCTGAGTGC

11782.1.contig

ATCTACGTCATCAATCAGGCTGGAGACACCATGTTCAATCGAGCTAAGCTGCTCAATATTG
GCTTTCAAGAGGCCCTTGAAGGACTATGATTACAACCTGCTTTGTGTTCAAGTGATGTGGACCT
CATTCCGATGGACGACCGTAATGCCTACAGGTGTTTTTCGCAGCCACGGCACATTTCTGTT
GCAATGGACAAGTTTCGGGTTTAGCCTGCCATATGTTCAAGTATTTTGGAGGTGTCTCTGCTCT
CAGTAAACAACAGTTTCTTGCCATCAATGGATTCCCTAATAATTATTGGGGTTGGGGAGGA
GAAGATGACGACATTTTAAACAGATTAGTTCATAAAGGCATGTCTATATCACGTCCAAATG
CTGTAGTAGGGAGGTGTCGAATGATCCGGCATTCAAGAGACAAGAAAAATGAGCCCAATC
CTCAGAGGTTTGACCGGATCGCACATACAAAGGAAACGATGCGCTTCGATGGTTTGAAC
CACTTACCTACAAGGTGTTGGATGTCAGAGATACCCGTTATATACCCAAATCAC

11782.2.contig

CTAGACCTCTAATTAAGGCACAATCATGCTGGAGAATGAACAGTCTGACCCCGAGGGC
CACAGCGAATTTTAGGGAAGGAGGCCAAAGAGGTGAGAAGGGAAAGGAAAGAAGGAAGG
AAGGAGAACAATAAGAACTGGAGACGTTGGGTGGGTGAGGGAGTGTGGTGGAGGCTCGG
AGAGATGGTAAACAAACCTGACTGCTATGAGTTTTCAACCCCATAGTCTAGGGCCATGAG
GGCGTCAGTTCTTGGTGGCTGAGGGTCCTTCCACCCAGCCACCTGGGGGAGTGGAGTGG
GGAGTTCTGCCAGGTAAGCAGATGTTGTCTCCCAAGTTCCTGACCCAGATGTCTGGCAGGA
TAACGCTGACCTGTTCCCTCAACAAGGGACCTGAAAGTAATTTTGCTCTTTAC

11783-1 & 2

CCGAATTCAAGCGTCAACGATCCYTCCCTTACCATCAAATCAATTGGCCACCAATGGTACT
GAACCTACGAGTACACCGACTACGGCGGACTAATCTTCAACTCCTACATACTTCCCCCAT
TATTCCTAGAACACGCGACCTGCGACTCCTTGACGTTGACAATCGAGTAGTACTCCCGAT
TGAAGCCCCCATTCGTATAATAATTACATCACAAGACGCTTGCACCTCATGAGCTGTCCCC
ACATTAGGCTTAAAAACAGATGCAATTCCCGGACGTCTAAGCCAAACCACTTTTACCGCTA
CAGGACCGGGGGTATACTACGGTCAATGCTCTGAAATCTGTGGAGCAAACCACAGTTTCAT
GCCCATCGTCTAGAAATTAATTCCCCTAAAAATCTTTGAAATAGGGCCCGTATTTACCCTA
TAGCACCCCTCTACCCCTCTAG

11786.1.contig

GCTCTTCACACTTTTATTGTTAATTCTCTTCACATGGCAGATACAGAGCTGTCGTCTTGAAG
ACCACCACTGACCAGGAAATGCCACTTTTACAAAATCATCCCCCTTTTCATGATTGGAAC
AGTTTTCTGACCGTCTGGGAGCGTTGAAGGGTGACCAGCACATTTGCACATGCAAAAAA
GGAGTGACCCCAAGGCCTCAACCACACTTCCCAGAGCTCACCATGGGCTGCAGGTGACTT
GCCAGGTTTGGGGTTCGTGAGCTTTCCTTGCTGCTGCGGTGGGGAGGCCCTCAAGAACTGA
GAGGCCGGGGTATGCTTCATGAGTGTTAACATTTACGGGACAAAAGCGCATCATTAGGAT
AAGGAACAGCCACAGCACTTCATGCTTGTGAGGGTTAGCTGTAGGAGCGGGTGAAAGGAT
TCCAGTTTATGAAAATTTAAAGCAAACAACGGTTTTTGTAGCTGGGTGGGAAACAGGAAAC
TGTGATGTCGGCCAATGACCACCATTTTTCTGCCCATGTGAAGGTCCCCATGAAACC

11786.2.contig

CAAGCGCTTGGCGTTTGGACCCAGTTCAGTGAGGTTCTTGGGTTTTGTGCCTTTGGGGATT
TGGTTTTGACCCAGGGGTGAGCCTTAGGAAGGTCTTCAGGAGGAGGCCGAGTTCCCCTTCAG
TACCACCCCTCTCTCCCACTTTCCCTCTCCCGCAACATCTCTGGGAATCAACAGCATATT
GACACGTTGGAGCCGAGCCTGAACATGCCCTCGGCCCCAGCACATGGAAAACCCCTTC
CTTGCTTAAGGTGTCTGAGTTTCTGGCTCTTGAGG'CATTTCCAGACTTGAAATTCTCATCAG
TCCATTGCTCTTGAGTCTTTGCAGAGAACCTCAGATCAGGTGCACCTGGGAGAAAGACTTT
GTCCCCACTTACAGATCTATCTCCTCCCTTGGGAAGGGCAGGGAATGGGGACGGTGTATGG
AGGGGAAGGGATCTCCTGCGCCCTTCATTGCCACACTTGGTGGGACCATGAACATCTTTAG
TGTCTGAGCTTCTCAAATTACTGCAATAGGA

13691.1&2

AGCGTCAAATCAGAATGGAAAAGACTCAAAACCATCATCAACACCAAGATCAAAAAGGAC
AAGRATCCTTCAAGAAACAGGAAAAAACTCCTAAAAACACCAAAAGGACCTAGTTCTGTAG
AAGACATTAAAGCAAAAATGCAAGCAAGTATAGAAAAAGGTGGTTCTCTTCCCAAAGTGG
AAGCCAAATTCATCAATTATGTGAAGAATTGCTTCCGGATGACTGACCAAGAGGCTATTCA
AGATCTCTGGCAGTGGAGGAAGTCTCTTTAAGAAAATAGTTTAAACAATTTGTTAAAAAAT
TTCCGTCTTATTTCAATTTCTGTAACAGTTGATATCTGGCTGTCCTTTTATAATGCAGAGT
GAGAACTTTCCCTACCGTGTGTTGATAAATGTTGTCCAGGTTCTATTGCCAAGAATGTGTTGT
CCAAAATGCCTGTTTAGTTTTTAAAGATGGAACCTCACCTTTGCTTGGTTTTAAGTATGTA
TGGAATGTTATGATAGGACATAGTAGTAGCGGTGGTCAGACATGGAAATGGTGGGSMGAC
AAAAATATACATGTGAAATAA

13692.1&2

TCCGAATCCAAGCGAATTATGGACAAACGATTCTTTTAGAGGATTACTTTTTCAATTTG
GGTTTTAGTAATCTAGGCTTTGCCTGTAAAGAATACAACGATGGATTTTAAATACTGTTTG
TGGAATGTGTTTAAAGGATTGATTCTAGAACCCTTTGTATATTTGATAGTATTTCTAACTTTC
ATTTCTTTACTGTTTGCAGTTAATGTTTCATGTTCTGCTATGCAATCGTTTATATGCACGTTTC
TTTAATTTTTTTAGATTTTCTGGATGTATAGTTTAAACAACAAAAAGTCTATTTAAACTG
TAGCAGTAGTTTACAGTTCTAGCAAAGAGGAAAAGTTGTGGGGTTAAACTTTGTATTTCTT
TCTTATAGAGGCTTCTAAAAAGGTATTTTATATGTTCTTTTAAACAAATATTGTGTACAAC
CTTTAAACATCAATGTTTGGATCAAAACAAGACCCAGCTTATTTTCTGC

13693.2

TGTGGTGGCGCGGGCTGAGGTGGAGGCCAGGACTCTGACCCTGCCCCTGCCTTCAGCAA
GGCCCCCGGCAGCGCCGGCCACTACGAACTGCCGTGGGTTGAAAAATATAGGCCAGTAAA
GCTGAATGAAATTGTCGGGAATGAAGACACCGTGAGCAGGCTAGAGGTCTTTGCAAGGGA
AGGAAATGTGCCCAACATCATCATTGCGGGCCCTCCAGGAACCGCAAGACCACAAGCAT
TCTGTGCTTGGCCCGGGCCCTGCTGGGCCCAGCACTCAAAGATGCCATGTTGGAACCTCAAT
GCTTCAAATGACAGGGGCATTGACGTTGTGAGGAATAAAATTTAAATGTTTGTCAACAA
AAAGTCACTCTTCCCAAAGGCCGACATAAGATCATCATTCTGGATGAAGCAGACAGCATG
ACCGACGGAGCCCAGCAAGCCTTGAGGAGAACCATGGAAATCTACTCTAAAACCACTCGT
TCGCCCTTGCTTGTAATGCTTCGGATAAGATCATCGAGCC

13696.1-13744.1

CTTTGCAAAGCTTTTATTTTCATGTCTGCGGCATGGAATCCACCTGCACATGGCATCTTAGCT
GTGAAGGAGAAAAGCAGTGCACGAGAAGGAATGAGTGGGCGGAACCAACGGCCTCCACAA
GCTGCCTTCCAGCAGCCTGCCAAGGCCATGGCAGAGAGAGACTGCAAACAAACACAAGCA
AACAGAGTCTCTTCACAGCTGGAGTCTGAAAGCTCATAGTGGCATGTGTGAATCTGACAA
AATTAAGTGTGCATAGTCCATTACATGCATAAAACACTAATAATAATCCTGTTTACACG
TGACTGCAGCAGGCAGGTCCAGCTCCACCACTGCCCTCCTGCCACATCACATCAAGTGCCA
TGGTTTAGAGGGTTTTTCATATGTAATCTTTTATTCTGTAAAAGGTAACAAAATATACAG
AACAAAACCTTCCCTTTTAAACTAATGTTACAAATCTGTATTATCACTTGGATATAAAT
AGTATATAAGCTGATC

13700.1

CAAGGGATATATGTTGAGGGTACRGRGTGACACTGAACAGATCACAAAGCACGAGAAACA
TTAGTTCTCTCCCTCCCCAGCGTCTCCTTCGTCTCCCTGGTTTTCCGATGTCCACAGAGTGA
GATTGTCCCTAAGTAACTGCATGATCAGAGTGTGKCTTTATAAGACTCTTCATTACAGCGT
ATCCAATTCAGCAATTGCTTCATCAAAATGCCGTTTTTGGCAGGCTACAGGCCTTTTCAGGA
GAGTTTAGAATCTCATAGTAAAAGACTGAGAAATTTAGTGCCAGACCAAGACGAATTGGG
TGTGTAGGCTGCATTNCTTTCTTACTAATTTCAAATGCTTCCTGGTAAGCCTGCTGGGAGTT
CGACACAAGTGGTTTGTGTTGCTCCAGATGCCACTTCAGAAAGATACCTAAAATAATCT
CCTTTCATTTTCAAAGTAGAACAC

13700.2

TCCGGAGCCGGGGTAGTTCGCCGCCGCCGCCGGTGCAGCCACTGCAGGCACCGCTGCC
GCCGCCTGAGTAGTGGGCTTAGGAAGGAAGAGGTATCTCGCTCGGAGCTTCGCTCGGAA
GGGTCTTTGTTCCCTGCAGCCCTCCACGGGAATGACAATGGATAAAAGTGAGCTGGTACA
GAAAGCCAACTCGCTGAGCAGGCTGAGCGATATGATGATATGGCTGCAGCCATGAAGGC
AGTCACAGAACAGGGGCATGAACTCTCCAACGAAGAGAGAAATCTGCTCTCTGTTGCCTA
CAAGAATGTGGTAAGGCCGCCGCCGCTCTTCTGGCGTGTATCTCCAGCATTGAGCAGA
AAACAGAGAGGAATGAGAAGAAGCAGCAGATGGGCAAAGAGTACCGTGAGAAGATAGA
GGCAGAACTGCAGGACATCTGCAATGATGTTCTGGAGCTTGTGGACAAATATCTTATTCC
AATGCTACACAACCCAGAAA

13701.1

AAAAAGCAGCARGTTCAACACAAAATAGAAATCTCAAATGTAGGATAGAACAAAACCAA
GTGTGTGAGGGGGGAAGCAACAGCAAAAGGAAGAAATGAGATGTTGCAAAAAAGATGGA
GGAGGGTTCCCTCTCCTCTGGGGACTGACTCAAACACTGATGTGGCAGTATACACCATT
CAGAGTCAGGGGTGTTTCTTTTGGGAGTAAGAAAAGGTGGGGATTAAGAAGACGT
TTCTGGAGGCTTAGGGACCAAGGCTGGTCTCTTCCCCCTCCCAACCCCTTGATCCCTTT
CTCTGATCAGGGGAAAGGAGCTCGAATGAGGGAGGTAGAGTTGGAAAGGGAAAGGATT
CACTTGACAGAATGGGACAGACTCCTCCCA

FIG. 15J

13701.2

TGGCAATAGCACAGCCATCCAGGAGCTCTTCARGCGCATCTCGGAGCAGTTCACTGCCATG
TTCCGCCGGAAGGCCTTCCTCCACTGGTACACAGGCGAGGGCATGGACGAGATGGAGTTC
ACCGAGGCTGAGAGCAACATGAACGACCTCGTCTCTGAGTATCAAGCAGTACCAGGATGC
CACCGCAGAAGAGGAGGAGGATTTCCGGTGAGGAGGCCGAAGAGGAGGCCTAAGGCAGAG
CCCCCATCACCTCAGGCTTCTCAGTTCCCTTAGCCGTCTTACTCAACTGCCCCCTTCTCTCC
CTCAGAATTTGTGTTTGCTGCCTCTATCTTGTTTTTTGTTTTTCTTCTGGGGGGGTCTAGAA
CAGTGCCTGGCACATAGTAGGCGCTCAATAAATACTTGGTTGNTGAATGTCTCCT

13702.2

AGCTGGCGCTAGGGCTCGGTTGTGAAATACAGCGTRGTCAGCCCTTGCGCTCAGTGTAGAA
ACCCACGCCTGTAAGGTCGGTCTTCGTCCATCTGCTTTTTTCTGAAATACACTAAGAGCAG
CCACAAAACCTGTAACCTCAAGGAAACCATAAAGCTTGGAGTGCCTTAATTTTTTAACCAGTT
TCCAATAAACGGTTTACTACCT

13704.2-13740.2

GGAGATGAAGATGAGGAAGCTGAGTCAGCTACGGGCARGCGGGCAGCTGAAGATGATGA
GGATGACGATGTCGATACCAAGAAGCAGAAGACCGACGAGGATGACTAGACAGCAAAAA
AGGAAAAGTTAAA

13706.1

GATGAAAATTAAATACTTAAATTAATCAAAAGGCACTACGATACCACCTAAAACCTACTG
CCTCAGTGGCAGTAKGCTAAKGAAGATCAAGCTACAGSACATYATCTAATATGAATGTTA
GCAATTACATAKCARGAAGCATGTTTGCTTTCCAGAAGACTATGGNACAATGGTCATTWG
GGCCCAAGAGGATATTTGGCCNGGAAAGGATCAAGATAGATNAANGTAAAG

13706.2

GAGTAGCAACGCAAAGCGCTTGGTATTGAGTCTGTGGGSGACTTCGGTTCCGGTCTCTGCA
GCAGCCGTGATCGCTTAGTGGAGTGCTTAGGGTAGTTGGCCAGGATGCCGAATATCAAAA
TCTTCAGCAGGCAGCTCCCACCAGGACTTATCTCASAAAATTGCTGACCGCCTGGGCCTGG
AGCTAGGCAAGGTGGTGACTAAGAAATTCAGCAACCAGGAGACCTGTGTGGAAATTGGTG
AAAGTGTACCGTGGAGAGGATGTCTACATTGTTTCAGAGTGGNTGTGGCGAAATCAATGAC
AATTTAATGGAGCTTTTGATCATGATTAATGCCTGCAAGATTGCTTCAGCCAGCCGGGTGA
CTGCAGTCATCCCATGCTTCCCTTATGCCCCGGCAGGATAAGAAAGATNAGAGCCGGGCC
GCCAATCTCAGCCAAGCTTGGTGCAAATATGCTATCTGTAGCAGTGCAGATCATATTATCA
CCATGGACCTACATGCTTCTCAAATTCANGGCTTTTT

13707.3

ATGCAAAAGGGGACACAGGGGGTTCAAAAATAAAAAATTTCTCTTCCCCCTCCCCAAACCT
GTACCCCAGCTCCCCGACCACAACCCCTTCCTCCCCCGGGGAAAGCAAGAAGGAGCAGG
TGTGGCATCTGCAGCTGGGAAGAGAGAGGCCGGGGAGGTGCCGAGCTCGGTGCTGGTCTC
TTTCCAAATATAAATACGTGTGTCAGAACTGGAATACTCCAGCACCCACCACCCAAGCA
CTCTCCGTTTTCTGCCGGTGTGTTGGAGAGGGGCGGNGGGCAGGGGCGCCAGGCACCGGCT
GGCTGCGGTCTACTGCATCCGCTGGGTGTGCACCCCGCA

13710.2

AGGTTGGAGAAGGTCATGCAGGTGCAGATTGTCCAGGSKCAGCCACAGGGTCAAGCCCCA
CAGGCCCAGAGTGGCACTGGACAGACCATGCAGGTGATGCAGCAGATCATCACTAACACA
GGAGAGATCCAGCAGATCCCGGTGCAGCTGAATGCCGGCCAGCTGCAGTATATCCGCTTA
GCCCAGCCTGTATCAGGCACTCAAGTTGTGCAGGGACAGATCCAGACACTTGCCACCAAT
GCTCAACAGATTACACAGACAGAGGTCCAGCAAGGACAGCAGCAGTTCAAGCCAGTTTAC
AAGATGGACAGCAGCTCTACCAGATCCAGCAAGTCACCATGCCTGCGGGCCANGACCTCG
CCAGCCCATGTTTCATCCAGTCAAGCCAACCAGCCCTTCNACGGGCAGGCCCCCAGGTGAC
CGGCGACTGAAGGGCCTGAGCTGGCAAGGCCAANGACACCAACAATTTTTGCCATAC
AGCCCCCAGGCAATGGGCACAGCCTTTCTTCCAGAGGAC

13710-1

TGAGATTTATTGCATTTTCATGCAGCTTGAAGTCCATGCAAAGGRGACTAGCACAGTTTTTA
ATGCATTTAAAAAATAAAAGGGAGGTGGGCAGCAAACACACAAAGTCCTAGTTTCCTGGG
TCCCTGGGAGAAAAGAGTGTGGCAATGAATCCACCCACTCTCCACAGGGAATAAATCTGT
CTCTTAAATGCAAAGAATGTTTCCATGGCCTCTGGATGCAAATACACAGAGCTCTGGGGTC
AGAGCAAGGGATGGGGAGAGGACCACGAGTGAAAAAGCAGCTACACACATTCACCTAAT
TCCATCTGAGGGCAAGAACAACGTGGCAAGTCTTGGGGGTAGCAGCTGTT

13711.1

TCCAGACATGCTCCTGTCTAGGCGGGGAGCAGGAACCAGACCTGCTATGGGAAGCAGAA
AGAGTTAAGGGAAGGTTTCCTTTTCATTCCTGTTCTTCTTTTGCTTTTGAACAGTTTTTA
AATATACTAATAGCTAAGTCATTTGCCAGCCAGGTCCCGGTGAACAGTAGAGAACAAGGA
GCTTGCTAAGAATTAATTTTGCTGTTTTTACCCCCATTCAAACAGAGCTGCCCTGTTCCCTG
ATGGAGTTCATTCTGCCAGGGCACGGCTGAGTAACACGAAGCCATTCAAGAAAGGCGG
GTGTGAAATCACTGCCACCCCATGGACAGACCCCTCACTCTTCTTCTTAGCCGCAGCGCT
ACTTAATAAATATATTTATACTTTGAAATTATGATAACCGATTTTTCCCATGCGGCATCTTA
AGGGCACTTGCCAGCTCTTATCCGGACAGTCAAGCACTGTTGTTGGACAACAGATAAAGG
AAAAGAAAAAGAAGAAAACAACCGCAACTTCTGT

FIG. 15L

13711.2

TGAGACGGACCACTGGCCTGGTCCCCCTCATKTGCTGTCGTAGGACCTGACATGAAACGC
AGATCTAGTGGCAGAGAGGAAGATGATGAGGAACCTTCTGAGACGTCGGCAGCTTCAAGAA
GAGCAATTAATGAAGCTTAACTCAGGCCTGGGACAGTTGATCTTGAAAGAAGAGATGGAG
AAAGAGAGCCGGGAAAGGTCATCTCTGTTAGCCAGTCGCTACGATTCTCCCATCAACTCAG
CTTCACATATTCCATCATCTAAAACATGCATCTCTCCCTGGCTATGGAAGAAATGGGCTTCA
CCGGCCTGTTTCTACCGACTTCGCTCAGTATAACAGCTATGGGGATGTCAGCGGGGGAGTG
CGAGATTACCAGACACTTCCAGATGGCCACATGCCTGCAATGAGAATGGACCGAGGAGTG
TCTATGCCCAACATGTTGGAACCAAAGATATTTCCATATGAAATGCTCATGGTGACCAACA
GAGGGCCGAAACCAAATCTCAGAGAGGTGGACAGAA

13713.1&2

TCACTTTATTTTTCTTGTATAAAAAACCCTATGTTGTAGCCACAGCTGGAGCCTGAGTCCGCT
GCACGGAGACTCTGGTGTGGGTCTTGACGAGGTGGTCAGTGAACCTCCTGATAGGGAGACT
TGGTGAATACAGTCTCCTTCCAGAGGTGGGGGTGAGGTAGCTGTAGGTCTTAGAAATGGC
ATCAAAGGTGGCCTTGGCGAAGTTGCCAGGGTGGCAGTGCAGCCCCGGGCTGAGGTGTA
GCAGTCATCGATAACCAGCCATCATGAG

13715.4

CTGGAATATAGACCCGTGATCGACAAAACCTTTGAACGAGGCTGACTGTGCCACCGTCCCCG
CAGCCATTTCGCTCCTACTGATGAGACAAGATGTGGTGTGACAGAATCAGCTTTTGTAAAT
ATGTATAATAGCTCATGCATGTGTCCATGTCATAACTGTCTTCATACGCTTCTGCACTCTGG
GGAAGAAGGAGTACATTGAAGGGAGATTGGCACCTAGTGGCTGGGAGCTTGCCAGGAACC
CAGTGGCCAGGGAGCGTGGCACTTACCTTTGTCCCTTGCTTCATTCTTGTGAGATGATAAA
ACTGGGCACAGCTCTTAAATAAAATATAAATGAACA

13717.1&2

TGAATGGGGAGGAGCTGACCCAGGAAATGGAGCTTGNGGAGACCAGGCCTGCAGGGGAT
GGAACCTTCCAGAAGTGGGCATCTGTGGTGGTGCCTCTTGGGAAGGAGCAGAAGTACACA
TGCCATGTGGAACATGAGGGGCTGCCTGAGCCCCCTACCCTGAGATGGGGCAAGGAGGAG
CCTCCTTCATCCACCAAGACTAACACAGTAATCATTGCTGTTCCGGTTGTCCTTGGAGCTGT
GGTCATCCTTGGAGCTGTGATGGCTTTTGTGATGAAGAGGAGGAGAAACACAGGTGGAAA
AGGAGGGGACTATGCTCTGGCTCCAGGCTCCCAGAGCTCTGATATGTCTCTCCAGATTGT
AAAGTGTGAAGACAGCTGCCTGGTGTGGACTTGGTGACAGACAATGTCTTCACACATCTCC
TGTGACATCCAGAGACCTCAGTTCTCTTTAGTCAAGTGTCTGATGTTCCCTGTGAGTCTGCG
GGCTCAAAGTGAAGAACTGTGGAGCCCAGTCCACCCCTGCACACCAGGACCCTATCCCTG
CACTGCCCTGTGTTCCCTTCCACAGCCAACCTTGCTGCTCCAGCCAAACATTGGTGGACAT
CTGCAGCCTGTCAGCTCCATGCTACCCCTGACCTTCAACTCCTCACTTCCACACTGAGAATA
ATAATTTGAATGTGGGTGGCTGGAGAGATGGCTCAGCGCTGACTGCTCTTCCAAAGGTCT
GAGTTCAAATCCCAGCAACCACATGGTGGCTCACAACCATCTGTAATGGGATCTAATACCC
TCTTCTGCAGTGTCTGAAGACASCTACAGTGTACTTACATATAATAATAAATAAG

FIG. 15M

13719.1&2

GGCCGGGCGCGCGCGCCCCGCCACACGCACGCCGGGCGTGCCAGTTTATAAAGGGAGAG
AGCAAGCAGCGAGTCTTGAAGCTCTGTTTGGTGCTTTGGATCCATTTCCATCGGTCCCTTAC
AGCCGCTCGTCAGACTCCAGCAGCCAAGATGGTGAAGCAGATCGAGAGCAAGACTGCTTT
TCAGGAAGCCTTGGACGCTGCAGGTGATAAACTTGTAGTAGTTGACTTCTCAGCCACGTGG
TGTGGGCCTTGCAAAATGATCAAGCCTTTCTTTTCATTCCCTCTCTGAAAAGTATTCCAACGT
GATATTCCTTGAAGTAGATGTGGATGACTGTCAGGATGTTGCTTCAGAGTGTGAAGTCAAA
TGCATGCCAACATTCCAGTTTTTTAAGAAGGGACAAAAGGTGGGTGAATTTTCTGGAGCCA
ATAAGGAAAAGCTTGAAGCCACCATTAAATGAATTAGTCTAATCATGTTTTCTGAAAATATA
ACCAGCCATTGGCTATTTAAACTTGTAAATTTTTTAATTTACAAAAATATAAAATATGAA
GACATAAACCCMGTGTCATCTGCGTGACAATAAACATTAATGCTAACACTT

13721.1

TCACATAAGAAATTTAAGCAAGTTACRCTATCTTAAAAACACAACGAATGCATTTTAATA
GAGAAACCCCTCCCTCCCTCCACCTCCCTCCCCACCCTCCTCATGAATTAAGAATCTAAG
AGAAGAAGTAACCATAAAACCAAGTTTTGTGGAATCCATCATCCAGAGTGCTTACATGGT
GATTAGGTAAATATTGCCTTCTTACAAAATTTCTATTTTAAAAAAAATTATAACCTTGATTG
CTTATTACAAAAAATTCAGTACAAAAGTTCAATATATTGAAAAATGCTTTTCCCTCCCT
CACAGCACCGTTTTATATATAGCAGAGAATAATGAAGAGATTGCTAGTCTAGATGGGGCA
ATCTTCAAATTACACCAAGACGCACAGTGGTTTATTTACCCTCCCCTTCTCATAAG

13721.2

GGAAAGGATTCAAGAATTAGAGGACTTGCTTGCTRRAGAAAAAGACAACCTCTCGTCGCAT
GCTGACAGACAAAGAGAGAGAGATGGCGGAAATAAGGGATCAAATGCAGCAACAGCTGA
ATGACTATGAACAGCTTCTTGATGTAAAGTTAGCCCTGGACATGGAAATCAGTGCTTACAG
GAAACTCTTAGAAGGCGAAGAAGAGAGGTTGAAGCTGTCTCCAAGCCCTTCTTCCCGTGT
GACAGTATCCCGAGCATCCTCAAGTCGTAGTGTACCGTACAACCTAGAGGAAAGCGGAAGA
GGGTTGATGTGGAAGAATCAGAGGCGAAGTAGTAGTGTAGCATCTCTCATTCCCGCTCAA
CCACTGGAAATGTTTGCATCGAAGAAATTGATGTTGATGGGAAATTTATCCCGCTTGAAGA
ACACTTCTGAACAGGATCAACCAATGGGAAGGCTTGGGAGATGATCAGAAAAATTGGAGA
CACATCAGTCAGTTATAAATATACCTCAA

13723.1

CATGGGTTTACCAGGTTGGCCAGGCTGCTCTTGAACSTCTGACCTCAGGTGATCCACCCG
CCTCGGCCTCCCAAAGTGCTGGGATTACAGGCGTGAGCCACCACGCCCGCCCCCAAAGC
TGTTTTCTTTGTCTTTAGCGTAAAGCTCTCTGCCATGCAGTATCTACATAACTGACGTGAC
TGCCAGCAAGCTCAGTCACTCCGTGGTCTTTTTCTCTTTCCAGTTCTTCTCTCTCTTCAAG
TTCTGCCTCAGTGAAAGCTGCAGGTCCCCAGTTAAGTGATCAGGTGAGGGTTCTTTGAACC
TGGTCTATCAGTCGAATTAATCCTTCATGATGG

13723.2

GATGTGTTGGACCCTCTGTGTCAAAAAAACCTCACAAAGAATCCCCTGCTCATTACAGAA
GAAGATGCATTTAAAAATATGGGTATTTCCTTTTATCTGAGGACAAGTATCCATTAA
TTATTGTGTCAGAAGAGATTGAATACCTGCTTAAGAAGCTTACAGAAGCTATGGGAGGAG
GTTGGCAGCAAGAACAATTTGAACATTATAAAATCAACTTTGATGACAGTAAAAATGGCC
TTTCTGCATGGGAACTTATTGAGCTTATTGGAATGGACAGTTTAGCAAAGGCATGGACCG
GCAGACTGTGTCTATGGCAATTAATGAAGTCTTAATGAACTTATATTAGATGTGTTAAAG
CAGGGTTACATGATGAAAAAGGGCCACAGACGGAAAACTGGACTGAAAGATGGTTTGTA
CTAAAACCCAACATAATTTCTTACTATGTGAGTGAGGATCTGAAGGATAAGAAAGGAGAC
ATTCTCTTGGATGAAAATTGCTGTGTAGAAGTCCTTGCTGACAAAAGATGGAAAGAAAT
GCCTTTT

13725.1

GACTGGTTCTTTATTTCAAAAAGACACTTGTCAATATTCAGTRTCAAAACAGTTGCACTATT
GATTTCTCTTTCTCCCAATCGGCCCAAAGAGACCACATAAAAGGAGAGTACATTTTAAGC
CAATAAGCTGCAGGATGTACACCTAACAGACCTCCTAGAAACCTTACCAGAAAATGGGGA
CTGGGTAGGGAAGGAACTTAAAAGATCAACAACTGCCAGCCACGGACTGCAGAGGCT
GTCACAGCCAGATGGGGTGGCCAGGGTGCCACAAACCCAAAGCAAAGTTTCAAAATAATA
TAAAATTTAAAAAGTTTTGTACATAAGCTATTCAAGATTTCTCCAGCACTGACTGATACAA
AGCACAATTGAGATGGCACTTCTAGAGACAGCAGCTTCAAACCCAGAAAAGGGTGATGAG
ATGAAGTTTCACATGGCTAAATCAGTGGCAAAAAACAGTCTTCTTTCTTTCTTTCTTCAA
GGANGCAGGAAAGCAATTAAGTGGTCACCTTAACATAAGGGGGAC

13725.2

TGGGTGGGCACCATGGCTGGGATCACCACCATCGAGGCGGTGAAGCGCAAGATCCAGGTT
CTGCAGCAGCAGGCAGATGATGCAGAGGAGCGAGCTGAGCGCCTCCAGCGAGAAGTTGA
GGGAGAAAGGCGGGCCCGGGAACAGGCTGAGGCTGAGGTGGCCTCCTTGAACCGTAGGA
TCCAGCTGGTTGAAGAAGAGCTGGACCGTGCTCAGGAGCGCCTGGCCACTGCCCTGCAAA
AGCTGGAAGAAGCTGAAAAAGCTGCTGATGAGAGTGAGAGAGGTATGAAGGTTATTGAA
AACCGGGCCTTAAAAGATGAAGAAAAGATGGAATCCAGGAAATCCAATCAAAGAAGC
TAAGCACATTGCAGAAGAGGCAGATAGGAAGTATGAAGAGGTGGCTCGTAAGTTGGTGAT
CATTGAAGGAGACTTGAACCGCACAGAAGGAACGAGCTTGAGCTTGGCAAAAGTCCCGT
TGCCCAGAGATGGGATGAACCAGATTAGACTGATGGACCANAACC

13726.1&2

AGGGGCNGCGGGTGCCTGGGCCACTGGGTGACCGACTTAGCCTGGCCAGACTCTCAGCAC
CTGGAAGCGCCCCGAGAGTGACAGCGTGAGGCTGGGAGGGAGGACTTGGCTTGAGCTTGT
TAAACTCTGCTCTGAGCCTCCTTGTCGCCTGCATTTAGATGGCTCCCGCAAAGAAGGGTGG
CGAGAAGAAAAAGGGCCGTTCTGCCATCAACGAAGTGGTAACCCGAGAATACACCATCAA
CATTACAAGCGCATCCATGGAGTGGGCTTCAAGAAGCGTGACCTCGGGCACTCAAAGA
GATTTCGAAAATTTGCCATGAAGGAGATGGGAACTCCAGATGTGCGCATTGACACCAGGCT
CAACAAAGCTGTCTGGGCCAAAGGAATAAGGAATGTGCCATACCGAATCCGGTGTGCGGC
TGTCCAGAAAACGTAATGAGGATGAAGATTCACCAAATAAGCTATATACTTTGGTTACCTA
TGTACCTGTTACCACTTTCAAAAATCTACAGACAGTCAATGTGGATGAGAACTAATCGCTG
ATCGTCAGATCAAATAAAGTTATAAAAT

13727.1

TCGGGAGCCACACTTGGCCCTCTTCCTCTCCAAAGSGCCAGAACCTCCTTCTCTTTGGAGAA
TGGGGAGGCCTCTTGGAGACACAGAGGGTTTCACCTTGGATGACCTCTAGAGAAATTGCC
CAAGAAGCCACCTTCTGGTCCCAACCTGCAGACCCACAGCAGTCAGTTGGTCAGGCCCT
GCTGTAGAAGGTCACTTGGCTCCATTGCCTGCTTCCAACCAATGGGCAGGAGAGAAGGCC
TTTATTTCTCGCCACCCATTCTCTCTGTACCAGCACCTCCGTTTTTCAGTCAGTGTGTCCA
GCAACGGTACCGTTTACACAGTCACCTCAGACACACCATTTCACCTCCCTTGCCAAGCTGT
TAGCCTTAGAGTGATTGCAGTGAACACTGTTTACACACCGTGAATCCATTCCCATCAGTCC
ATTCCAGTTGGCACCAGCCTGAACCATTGTTGACCTGGTGTAACTGGAGTCCTGTTTACA
AGGTGGAGTCGGGGCTTGCTGACTTCTCTTCATTTGAGGGCAC

13727.2

ACCTAGACAGAAGGTGGGTGAGGGAGGACTGGTAGGAGGCTGAGGCAATTCCTTGGTAGT
TTGTCCTGAAACCCTACTGGAGAAGTCAGCATGAGGCACCTACTGAGAGAAGTGCCCAGA
AACTGCTGACTGCATCTGTAAAGAGTTAACAGTAAAGAGGTAGAAGTGTGTTTCTGAATCA
GAGTGAAGCGTCTCAAGGGTCCCACAGTGGAGGTCCCTGAGCTACCTCCCTTCCGTGAGT
GGGAAGAGTGAAGCCCATGAAGAACTGAGATGAAGCAAGGATGGGGTTCCTGGGCTCCA
GGCAAGGGCTGTGCTCTCTGCAGCAGGGAGCCCCACGAGTCAGAAGAAAAGAACTAATCA
TTTGTGCAAGAAACCTTGCCCGGATACTAGCGGAAAACCTGGAGGCGGNGGTGGGGGCAC
AGGAAAGTGGAAGTGATTTGATGGAGAGCAGAGAAGCCTATGCACAGTGGCCGAGTCCAC
TTGTAAAGTG

13728.1&2

TTCAAGCAATTGTAACAAGTATATGTAGATTAGAGTGAGCAAAATCATATACAATTTTCAT
TTCCAGTTGCTATTTTCCAAATTGTTCTGTAATGTCGTTAAAATTAATAAAAATTAACAAA
GCCAAAAATTATATTTATGACAAGAAAGCCATCCCTACATTAATCTTACTTTTCCACTCAC
CGGCCCATCTCCTTCTCTTTTCTTAATACTATGCCATTAAAACCTGTTCTACTGGGCCGGCG
TGTGGCTCATGCCTGTAATCCCAGCATTTTGGGAGGCCAAGGCAGGCGGATCATGAGGTC
AAGAGATTGAGACCATCCTGGCCAACATGGTGAAACCCCGCCTCGACTAAGAATACAAAA
ATTAGCTGGGCATGGTGGCGCATGCCTGTAGTCTCAGCTACTCGGGAGGCTGAGGCAGAA
GAATCGCTTGAACCCGGGAGGCAGAGGATGCAGTGAGCCCCGATCGCGCCACTGCACTCT
AGCCTGGGCGACAGACTGAGACTCTGCTC

13731.1&2

TGTGCCAGTCTACAGGCCTATCAGCAGCGACTCCTTCAGCAACAGATGGGGTCCCCTGTTT
AGCCCAACCCCATGAGCCCCCAGCAGCATATGCTCCCAAATCAGGCCCAGTCCCCACACCT
ACAAGGCCAGCAGATCCCTAATTCTCTCTCCAATCAAGTGCGCTCTCCCCAGCCTGTCCCTT
CTCCACGGCCACAGTCCCAGCCCCCCTCCAGTCCTTCCCCAAGGATGCAGCCTCAGCC
TTCTCCACACCACGTTTCCCCACAGACAAGTTCCCCACATCCTGGACTGGTAGTTGCCAG
GCCAACCCCATGGAACAAGGGCATTGTCAGCC

13734.1&2

TGTA AAAA ACTTGT TTTTAATTTTGTATA AAAATAAAGGTGGTCCATGCCCACGGGGGCTGTA
GGAAATCCAAGCAGACCAGCTGGGGTGGGGGGATGTAGCCTACCTCGGGGACTGTCTGT
CCTCAAAACGGGCTGAGAAGGCCCGTCAGGGGGCCAGGTCCCACAGAGAGGCCTGGGATA
CTCCCCAACCCGAGGGGCAGACTGGGCAGTGGGGAGCCCCATCGTGCCCCAGAGGTGG
CCACAGGCTGAAGGAGGGGCCTGAGGCACCGCAGCCTGCAACCCCCAGGGCTGCAGTCCA
CTAACTTTTTACAGAATAAAAGGAACATGGGGATGGGGAAAAAAGCACCCAGGTCAGGCA
GGGCCCCGAGGGCCCCAGATCCCAGGAGGGCCAGGACTCAGGATGCCAGCACCCCTAGC
AGCTCCCACAGCTCCTGGCACAGGAGGCCGCCACGGATTGGCACAGGCCGCTGCTGGCCA
TCACGCCACATTTGGAGAACTTGTCCCGACAGAGGTCAGCTCGGAGGAGCTCCTCGTGGGC
ACACACTGTACGAACACAGATCTCCTTGTTAATGACGTACACACGGCGGAGGCTGCGGGG
ACAGGGCACGGGAGGTCTCAGCCCCACTT

13736.2

ATGGCTGCTGGATTTAGGTGGTAATAGGGGCTGTGGGCCATAAATCTGAAGCCTTGAGAA
CCTTGGGTCTGGAGAGCCATGAAGAGGGAAGGAAAAGAGGGCAAGTCCTGAACCTAACC
AATGACCTGATGGATTGCTCGACCAAGACACAGAAGTGAAGTCTGTGTCTGTGCACTTCCC
ACAGACTGGAGTTTTTGGTGCTGAATAGAGCCAGTTGCTAAAAAATTGGGGGTTTGGTGA
AGAAATCTGATTGTTGTGTGATTCAATGTGTGATTTTAAAAATAAACAGCAACAACAATA
AAAACCCTGACTGGCTGTTTTTCCCTGTATTCTTTACAACCTATTTTTGACCCTCTGAAAA
TTATTATACTTCACCTAAATGGAAGACTGCTGTGTTTGTGGAAATTTTGTAAATTTTAAAT
TATTTTATTCTCTCCTTTTTATTTTGCTGCAGAATCCGTTGAGAGACTAATAAGGCTTA
ATATTTAATTGATTTGTTTAATATGTATATAAAT

13744.2-13696.2

GGCATGCGAGCGCACTCGGCGGACGCAAGGGCGGCGGGAGCACACGGAGCACTGCAGG
CGCCGGGTTGGGACAGCGTCTTCGCTGCTGCTGGATAGTCGTGTTTTCGGGGATCGAGGAT
ACTCACCAGAAACCGAAAATGCCGAAACCAATCAATGTCCGAGTTACCACCATGGATGCA
GAGCTGGAGTTTGCAATCCAGCCAAATACAACCTGGA AAACAGCTTTTTGATCAGGTGGTA
AAGACTATCGGCCCTCCGGGAAGTGTGGTACTTTGGCCTCCACTATGTGGATAATAAAGGAT
TTCCTACCTGGCTGAAGCTGGATAAGAAGGTGTCTGCCAGGAGGTCAGGAAGGAGAATC
CCCTCCAGTTCAAGTTCGGGGCAAaGTTCTACCCTGAAGATGTGGCTGAGGAGCTCATCC
AGGACATCACCCAGAAACTTTTCTTCCTTCAAGTGAAGGAAGGAATCCTTAGCGATGAGAT
CTACTGCCCCCTTGARACTGCCGTGCTCTTGGGGTCTACGCTTGTGCATGCCAAGTTTGG
GGACTACCACCAAGAAG

13746.1&2-13720.1&2

GAAGGAGTCGGGATACTCAGCATTGATGCACCCCAATTTCAAAGCGGCATTCTTCGGCAG
GTCTCTGGGACAACTCTAGGGTCACTACCTGGAAACTCGTTAGGGTACAACCTGAATGCTG
AAAGGAAAGAACACCTGCAGAACCGGACAGAAATTCACCCCGCGATCAGCTGATTGATC
TCGGTCGACCAGAAGTCATGGCTAAAGATGACGAGGACGTTGTCAATTCCTGGGCTTTTC
GAAGTGAGTCCAGCAGCAGTCTGAGGTATTCGGGCCGGTTATGCACCTGGACCACCAGCA
CCAGCTCCCGGGGGGCCAGGTGCCAGCCTTATCTACATTCCTCAGGGTCTGATCAAAGTT
CAGCTGGTACACCAGGAGCCGGTACCAGCGTCAGGTTGTCCGCTCGGGCTGGGGACC
GCCGGGACCAGGGAAGCCCGCACGTTGGAGACCCTGCGGATGCCACAGCCACAGAG
GGGTGGTCCCCACCGCGGCCGCCGCCACCCCGCGCGGGTTTCGGCGTCCAGCAACGGTGGG
GCGAGGGCCTCGTTCTTCTTTGTGCGCCATTGCTGCTCCAGAGGACGAAGCCGCAGGCGG
CCACCACGAGCGTCAGGATTAGCACCTTCCGTTTGTAGATGCGGAACCTCATGGTCTCCAG
GGCCGGGAGCGCAGCTACAGCTCGAGCGTCGGCGCCGCCGCTAGGAGCCGCGGCTCGGCT
TCGTCTCCGTCTCTCCATTACGACCACGGGTCCCGGAAAAAGCTCAGCCSCGGTCCCAA
CCGCACCCTAGCTTCGTTACCTGCGCCTCGCTTG

FIG. 15Q

14347.1

CAGATTTTTATTTGCAGTCGTCAGTGGGGCCGTTTCTTGCTGCTTATTTGTCTGCTAGCCTG
CTCTTCCAGCTGCATGGCCAGGCGCAAGGCCTTGATGACATCTCGCAGGGCTGAGAAATGC
TTGGCTTGCTGGGCCAGAGCAGATTCCGCTTTGTTTCAAAAGGTCTCCAGGTCATAGTCTG
GCTGCTCGGTATCTCAGAGAGCTCAAGCCAGTCTGGTCCTTGCTGTATGATCTCCTTGAG
CTCTTCCATAGCCTTCTCCTCCAGCTCCCTGATCTGAGTCATGGCTTCGTTAAAGCTGGACA
TCTGGGAAGACAGTTCCTCCTCTTCTTGGATAAATTGCCTGGAATCAGCGCCCCGTTAGA
GCAGGCTTCCATCTCTTCTGTTTCCATTTGAATCAACTGCTCTCCACTGGGCCCCACTGTGGG
GGCTCAGCTCCTTGACCCTGCTGCATATCTTAAGGGTGTTTAAAGGATATTCACAGGAGCT
TATGCCTGGT

14347.2

CTCCTCTTGGTACATGAACCCAAGTTGAAAGTGGACTTAACAAAGTATCTGGAGAACCAA
GCATTCTGCTTTGACTTTGCATTTGATGAAACAGCTTCGAATGAAGTTGTCTACAGGTTTAC
AGCAAGGCCACTGGTACAGACAATCTTTGAAGGTGGAAAAGCAACTTGTTTTGCATATGG
CCAGACAGGAAGTGGCAAGACACATACTATGGGCGGAGACCTCTCTGGGAAAGCCCAGAA
TGCATCCAAAGGGATCTATGCCATGGCCTTCCGGGACGTCTTCTTGAAGAATCAACCCT
GCTACCGGAAGTTGGCCTGGAAGTCTATGTGACATTCTTCGAGATCTACAATGGGAAGCT
GTTTGACCTGCTCAACAAGAAGGCCAAGCTTGCGCGTGCTGGAAGACGGCAAGCAACAGG
TGCAAGTGGTGGGGGCTTGCAAGAACATCTGGNTAACTCTGCTTGATGATGGCANTCAAG
ATGATCGACATGGGCAGCGCCTGCAGA

14348.2&14350.1&2

TCCCGAATTCAAGCGACAAATTGGAWAGTGAAATGGAAGATGCCTATCATGAACATCAGG
CAAATCTTTTGCGCCAAGATCTGATGAGACGACAGGAAGAATTAAGACGCATGGAAGAAC
TTCACAATCAAGAAATGCAGAAACGTAAAGAAATGCAATTGAGGCAAGAGGAGGAACGA
CGTAGAAGAGAGGAAGAGATGATGATTCGTCAACGTGAGATGGAAGAACAATGAGGCG
CCAAAGAGAGGAAAGTTACAGCCGAATGGGCTACATGGATCCACGGGAAAGAGACATGC
GAATGGGTGGCGGAGGAGCAATGAACATGGGAGATCCCTATGGTTCAGGAGGCCAGAAA
TTTCCACCTCTAGGAGGTGGTGGTGGCATAGGTTATGAAGCTAATCCTGGCGTTCCACCAG
CAACCATGAGTGGTTCATGATGGGAAGTGACATGCGTACTGAGCGCTTTGGGCAGGGAG
GTGCGGGGCTGTGGGTGGACAGGGTCTAGAGGAATGGGGCCTGGAATCCAGCAGGAT
ATGGTAGAGGGAGAGAAGAGTACGAAGGC

14349.1&2

TTCGTGAAGACCCTGACTGGTAAGACCATCACTCTCGAAGTGGAGCCCGAGTGACACCATT
GAGAATGTCAAGGCAAAGATCCAAGACAAGGAAGGCATCCCTCCTGACCAGCAKAGGTTG
ATCTTTGCTGGGAAACAGCTGGAAGATGGACGCACCCTGTCTGACTACAACATCCAGAAA
GAGTCCACCCTGCACCTGGTGTCCGTCTCAGAGGTGGGATGCAAATCTTCGTGAAGACCC
TGACTGGTAAGACCATCACCTCGAGGTGGAGCCCAGTGACACCATCGAGAATGTCAAGG
CAAAGATCCAAGATAAGGAAGGCATCCCTCCTGATCAGCAGAGGTTGATCTTTGCTGGGA
AACAGCTGGAAGATGGACGCACCCTGTCTGACTACAACATCCAGAAAGAGTCCACTCTGC
ACTTGGTCTGCGCTTGAGGGGGGGTGTCTAAGTTTCCCCTTTTAAAGGTTTCAACAAATTC
ATTGCACTTTCCTTTCAATAAAGTTGTTGCATT

FIG. 15R

14352.1&2

GCGCGGGTGCGTGGGCCACTGGGTGACCGACTTAGCCTGGCCAGACTCTCAGCACCTGGA
AGCGCCCCGAGAGTGACAGCGTGAGGCTGGGAGGGAGGACTTGGCTTGAGCTTGTTAAAC
TCTGCTCTGAGCCTCCTTGTGCGCTGCATTTAGATGGCTCCCGCAAAGAAGGGTGGCGAGA
AGAAAAAGGGCCGTTCTGCCATCAACGAAGTGGTAACCCGAGAATACACCATCAACATTC
ACAAGCGCATCCATGGAGTGGGCTTCAAGAAGCGTGACCTCGGGCACTCAAAGAGATTC
GGAAATTTGCCATGAAGGAGATGGGAACTCCAGATGTGCGCATTGACACCAGGCTCAACA
AAGCTGTCTGGGCCAAAGGAATAAGGAATGTGCCATACCGAATCCGTGTGCGGCTGTCCA
GAAAACGTAATGAGGATGAAGATTCACCAAATAAGCTATATACTTTGGTTACCTATGTACC
TGTTACCACTTTCAAAAATCTACAGACAGTCAATGTGGATGAGAACTAATCGCTGATCGT

14353.1

AATTCTTTATTTAAATCAACAAACTCATCTTCCTCAAGCCCCAGACCATGGTAGGCAGCCC
TCCCTCTCCATCCCCTCACCCACCCCTTAGCCACAGTGAAGGGAATGGAAAATGAGAAGC
CACGAGGGCCCCCTGCCAGGGAAGGCTGCCCCAGATGTGTGGTGAGCACAGTCAGTGCAGC
TGTGGCTGGGGCAGCAGCTGCCACAGGCTCCTCCCTATAAATTAAGTTCCTGCAGCCACAG
CTGTGGGAGAAGCATACTTGTAGAAGCAAGGCCAGTCCAGCATCAGAAGGCAGAGGCAG
CATCAGTGACTCCCAGCCATGGAATGAACGGAGGACACAGAGCTCAGAGACAGAACAGG
CCAGGGGGAAGAAGGAGAGACAGAATAGGCCAGGGCATGGCGGTGAGGGA

14353.2

TGATGAATCTGGGTGGGCTGGCAGTAGCCCCGAGATGATGGGCTCTTCTCTGGGGATCCCAA
CTGGTTCCCTAAGAAATCCAAGGAGAATCCTCGGAACTTCTCGGATAACCAGCTGCAAGA
GGGCAAGAACGTGATCGGGTTACAGATGGGCACCAACCGCGGGGCGTCTCANGCAGGCAT
GACTGGCTACGGGATGCCACGCCAGATCCTCTGATCCCACCCAGGCCTTGCCCTGCCCT
CCCACGAATGGTTAATATATATGTAGATATATATTTTAGCAGTGACATTCCCAGAGAGCCC
CAGAGCTCTCAAGCTCCTTTCTGTCAGGGTGGGGGGTTCAAGCCTGTCCTGTCACCTCTGA
AGTGCCTGCTGGCATCCTCTCCCCCATGCTTACTAATACATTCCCTTCCCCATAGCC

17182.1&2

AGCGGAGCTCCCTCCCCTGGTGGCTACAACCCACACACGCCAGGCTCAGGCATCGAGCAG
AACTCCAGCGACTGGGTAACTGACATTCAGGTGAAGGTGCGGGACACCTACCTGGAT
ACACAGGTGGTGGGACAGACAGGTGTCATCCGCAGTGTCACGGGGGGCATGTGCTCTGTG
TACCTGAAGGACAGTGAGAAGGTTGTCAGCATTTCCAGTGAGCACCTGGAGCCTATCACC
CCCACCAAGAACAACAAGGTGAAAGTGATCCTGGGCGAGGATCGGGAAGCCACGGGCGT
CCTACTGAGCATTGATGGTGAGGATGGCATTGTCCGTATGGACCTTGATGAGCAGCTCAAG
ATCCTCAACCTCCGCTTCTGGGGAAGCTCCTGGAAGCCTGAAGCAGGCAGGGCCGGTGG
ACTTCGTCGGATGAAGAGTGATCCTCCTTCCCTTGGCCCTTGGCTGTGACACAAGATC
CTCCTGCAGGGCTAGGCGGATTGTTCTGGATTTCCTTTTGTTCCTTTTAGGTTTCCATCT
TTTCCCTCCCTGGTGCTCATTGGAATCTGAGTAGAGTCTGGGGGAGGGTCCCCACCTTCCT
GTACCTCCTCCCCACAGCTTGCTTTTGTGTACCGTCTTCAATAAAAAGAAGCTGTTTGGT
CTA

17183.2

GGTTCACAGCACTGCTGCTTGTGTGTTGCCGGCCAGGAATTCCAGGCTCACAAGGCTATCT
TAGCAGCTCGTTCTCCGGTTTTAGTGCCATGTTTGAACATGAAATGGAGGAGAGCAAAAA
GAATCGAGTTGAAATCAATGATGTGGAGCCTGAAGTTTTTAAGGAAATGATGTGCTTCATT
TACACGGGGAAGGCTCCAAACCTCGACAAAATGGCTGATGATTTGCTGGCAGCTGCTGAC
AAGTATGCCCTGGAGCGCTTAAAGGTCAATGTGTGAGGATGCCCTCTGCAGTAACCTGTCCG
TGGAGAACGCTGCAGAAATTCATCCTGGCCGACCTCCACAGTGCAGATCAGTTGAAAA
CTCAGGCAGTGGATTCATCAACTATCATGCTTCGGATGTCTTGGAGACCTCTTGGG

17186.1&2

TCGTAGCCATTTTTCTGCTTCTTTGGAGAATGACGCCACACTGACTGCTCATTGTCTGTTGGT
TCCATGCCAATTGGTGAATAGAACCTCATCCGGTAGTGGAGCCGGAGGGACATCTTGTC
ATCAACGGTGATGGTGCGATTTGGAGCATACCAGAGCTTGGTGTCTCGCCATACAGGGCA
AAGAGGTTGTGACAAAGAGGAGAGATACGGCATGCCTGTGCAGCCCTGATGCACAGTTCC
TCTGCTGTGTACTCTCCACTGCCAGCCGGAGGGGCTCCCTGTCCGACAGATAGAAGATCA
CTTCCACCCCTGGCTTG

17187.1&2

TGGCACACTGCTCTTAAGAACTATGAWGATCTGAGATTTTTTTGTGTATGTTTTGACTCT
TTTGAGTGGTAATCATATGTGTCTTTATAGATGTACATACCTCCTTGCACAAATGGAGGGG
AATTCATTTTCATCACTGGGAGTGTCTTAGTGTATAAAAACCATGCTGGTATATGGCTTC
AAGTTGTAAAAATGAAAGTGACTTTAAAGAAAAATAGGGGATGGTCCAGGATCTCCACTG
ATAAGACTGTTTTTAAGTAACTTAAGGACCTTTGGGTCTACAAGTATATGTGAAAAAAATG
AGACTTACTGGGTGAGGAAATTCATTGTTTAAAGATGGTTCGTGTGTGTGTGTGTGTGTG
TGTGTTGTGTGTGTGTTTTTTAAGGGAGGGAATTTATTATTTACCGTTGCTTGAAATT
ACTGKGTAAATATATGTYTGATAATGATTTGCTYTTTGVMACATAAAATTAGGVCTGTATA
AGTWCTARATGCMTCCTGGGKGTGATYTTCCMAGATATTGATGATAMCCCTTAAATTT
GTAACCYGCCTTTTTCCCTTTGCTYTCMATTAAGTCTATTCTMAAAG

17191.1&89.1

GGGGGTAGGCTCTTATTAGACGGTTATTGCTGTACTACAGGGTCAGAGTGCAGTGTAAGC
AGTGTCAGAGGCCCGCGTTCAGCCCAAGAATGTGGATTTTCTCTCCCTATTGATCACAGTG
GGTGGGTTTCTTCAGAAAAGCCCCAGAGGCAGGGACCAGTGAGCTCCAAGGTTAGAAGTG
GAACTGGAAGGCTTCAGTCACATGCTGCTTCCACGCTTCCAGGCTGGGCAGCAAGGAGGA
GATGCCCATGACGTGCCAGGTCTCCCCATCTGACACCAGTGAAGTCTGGTAGGACAGCAG
CCGCACGCCTGCCTCTGCCAGGAGGCCAATCATGGTAGGCAGCATTGCAGGGTCAGAGGT
CTGAGTCCGGAATAGGAGCAGGGGCAGGTCCCTGCGGAGAGGCACTTCTGGCCTGAAGAC
AGCTCCATTGAGCCCTGCAGTACAGGYGTAGTGCCCTTGACCAAGGCCACAGCCTGGTA
AGGGGCGCCTGCCAGGGCCACGGCCAGGAGGCA

FIG. 15T

17192.1&2

TAATTTCTTAGTCGTTTGGGAATCCTTAAGCATGCAAAAGCTTTGAACAGAAGGGTTCACAA
AGGAACCAGGGTTGTCTTATGGCATCCAGTTAAGCCAGAGCTGGAATGCCTCTGGGTCAT
CCACATCAGGAGCAGAAGCACTTGACTTGTCGGTCCTGCTGCCACGGTTTGGGCGCCACC
ACGCCCACGTCCACCTCGTCCTCCCTGCCGCCACGTCCTGGGCGGCCAAGGTCTCCAAAA
TTGATCTCCAGCTGAGACGTTATATCATTTGCTGGCTCCGGAAATGATGGTCCATAACCG
AATCTTCAGCATGAGCCTCTTCACTCTTTGATTTATGAAGAACAAATCCCTTCTTCCACTGC
CCATCAGCACCTTCATTTGGTTTTTCGGATATTAATTTCTACTTTTGGCCGGTCTTATTTTGA
ATAGCCTTCCACTCATCAAAGTCATCTCTTTGGACCCTCCTCTTTACCTCTTCAACTCA
TTCTCCTTATTTTCAGTGTCTGCCACTGGATGATGTTCTTACCTTCAGGTGTTTCTCAGTC
ACATTTGATTGATCCAAGTCAGTTAATTCGTCTTTGACAGTTCCCCAGTTGTGAGATCCGCT
ACCTCCACGTTTGTCTCGTCTTCAGGCCAGATCTATCACTTCCACTATGCCTATCAAATT
CACGTTTGCCACGAGAATCAAATCCATCTCCTCGGCCATTCCACGTCCACGGCCCCCTCG
ACCTCTTCCAAGACCACCACGACCTCGAATAGGTGCGTCAATAATCGGTCTATCAACTGAA
AATTCGCTCCTTACCCCTTTTCTTCAAGTGGCTTTTGAATCTTCGTTACGAGGTGGTCG
CCTTCTGGTCTTCTATCAATTATTTCCCTTACCCTGAAGTTGTTGATCAGGTCTTCTTCC
AACTCGTGC

17193

AAGCGGATGGACCTGAGTCAGCCGAATCCTAGCCCCCTTCCCTTGGGCCTGCTGTGGTGCTC
GACATCAGTGACAGACGGAAGCAGCAGACCATCAAGGCTACGGGAGGCCCCGGGCGCTT
GCGAAGATGAAGTTTGGCTGCCTCTCCTTCCGGCAGCCTTATGCTGGCTTTGTCTTAAATG
GAATCAAGACTGTGGAGACGCGCTGGCGTCTCTGCTGAGCAGCCAGCGAACTGTACCA
TCGCCGTCCACATTGCTCACAGGGACTGGGAAGGCGATGCCTGTCGGGAGCTGCTGGTGG
AGAGACTCGGGATGACTCCTGCTCAGATTCAGGCCTTGCTCAGGAAAGGGGAAAAGTTTG
GTCGAGGAGTGATAGCGGGACTCGTTGACATTGGGGAAACTTTGCAATGCCCCGAAGACT
TAACTCCCGATGAGGTTGTGGAAGTAGAAAATCAAGCTGCACTGACCAACCTGAAGCAGA
AGTACCTGACTGTGATTTCAAACCCAGGTGGTTACTGGAGCCCATACTAGGAAAGGAG
GCAAGGATGTATTCCAGGTAGACATCCCAGAGCACCTGATCCCTTTGGGGCATGAAGTGT
GACAAGTGTGGGCTCCTGAAAGGAATGTTCCRGAGAAACCAGCTAAATCATGGCACCTTC
AATTTGCCATCGTGACGCAGACCTGTATAAATTAGGTTAAAGATGAATTTCCACTGCTTTG
GAGAGTCCCACCCACTAAGCACTGTGCATGTAAACAGGTTCTTTGCTCAGATGAAGGAA
GTAGGGGGTGGGGCTTTCTTGTGTGATGCCTCCTTAGGCACACAGGCAATGTCTCAAGTA
CTTTGACCTTAGGGTAGAAGGCAAAGCTGCCAGTAAATGTCTCAGCATTGCTGCTAATTTT
GGTCTGCTAGTTTCTGGATTGTACAAATAAATGTGTTGTAGATGA

16443.1.edit

TCGAGCGGCCCGCCGGGCAGGTGTCGGAGTCCAGCACGGGAGGCGTGGTCTTGTAGTTGT
TCTCCGGCTGCCCATTGCTCTCCCACTCCACGGCGATGTCGCTGGGATAGAAGCCTTTGAC
CAGGCAGGTGAGGCTGACCTGGTTCTTGGTCATCTCCTCCCGGGATGGGGGCAGGGTGTAC
ACCTGTGGTTCTCGGGGCTGCCCTTTGGCTTTGGAGATGGTTTTCTCGATGGGGGCTGGGA
GGGCTTTGTTGGAGACCTTGCACTTGTACTCCTTGCCATTCAACCAGTCCTGGTGCANGAC
GGTGAGGACGCTNACCACACGGTACGNGCTGGTGTACTGCTCCTCCCGCGGCTTTGTCTTG
GCATTATGCACCTCCACGCCGTCCACGTACCAATTGAACTTGACCTCAGGGTCTTCGTGGC
TCACGTCCACCACCACGCATGTAACCTCAAANCTCGGNCGCGANACG

16443.2.edit

AGCGTGGTCGCGGCCGAGGTCTGAGGTTACATGCGTGGTGGTGGACGTGAGCCACGAAGA
CCCTGAGGTCAAGTTCAACTGGTACGTGGACGGCGTGGAGGTGCATAATGCCAAGACAAA
GCCGCGGGAGGAGCAGTACAACAGCACGTACCGTGTGGTCAGCGTCCTACCGTCCTGCA
CCAGGACTGGCTGAATGGCAAGGAGTACAAGTGCAAGGTCTCCAACAAAGCCCTCCCAGC
CCCCATCGAGAAAACCATCTCCAAAGCCAAAGGGCAGCCCCGAGAACCACAGGTGTACAC
CCTGCCCCCATCCCGGGAGGAGATGACCAAGAACCAGGTCAGCCTGACCTGCCTGGTCAA
AGGCTTCTATCCCAGCGACATCGCCCGTGGAGTGGGAGAGCAATGGGCAGCCGGAGAACA
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16444.2.edit

AGCGTGGTTNCGGCCGAGGTCCCAACCAAGGCTGCANCTGGATGCCATCAAAGTCTTCTG
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CTGGTACATCAGCAAGAACCCCAAGGACAAGAGGCATGTCTGGTTCGGCGAGAGCATGAC
CGATGGATTCCAGTTCGAGTATGGCGGCCAGGGCTCCGACCCTGCCGATGTGGACCTGCCC
GGGCGGNCGCTCGA

16445.1.edit

AGCGTGGTCGCGGCCGAGGTCAAGAACCCCGCCCGCACCTGCCGTGACCTCAAGATGTGC
CACTCTGACTGGAAGAGTGGAGAGTACTGGATTGACCCCAACCAAGGCTGCAACCTGGAT
GCCATCAAAGTCTTCTGCAACATGGAGACTGGTGGAGACCTGCGTGTACCCCACTCAGCCCA
GTGTGGCCCAGAAGAACTGGTACATCAGCAAGAACCCCAAGGACAAGAGGCATGTCTGGT
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CCGATGTGGACCTGCCCCGGGCGGCCGCTCGA

16445.2.edit

TCGAGCGGTCGCCCCGGGCAGGTCCACATCGGCAGGGTCGGAGCCCTGGCCGCCATACTCG
AACTGGAATCCATCGGNATGCTCTCGCCGAACCAGACATGCCTCTTGNCCTTGGGGTTCT
TGCTGATGTACCAGNTCTTCTGGGCCACACTGGGCTGAGTGGGGTACACGCAGGTCTCACC
ANTCTCCATGTTGCANAAGACTTTGATGGCATCCAGGTTGCAGCCTTGGTTGGGGTCAATC
CAGTACTCTCCACTCTTCCAGACAGAGTGGCACATCTTGAGGTCACGGCAGGTGCGGGCGG
GGTTCTTGACCTCGGTCGCGACACGCT

16446.1.edit

TCGAGCGGCCGCCCCGGGCAGGTCTCCTCAGAGCGGTAGCTGTTCTTATTGCCCCGGCAGC
CTCCATAGATNAAGTTATTGCANGAGTTCCTCTCCACGTCAAAGTACCAGCGTGGGAAGG
ATGCACGGCAAGGCCAGTGACTGCGTTGGCGGTGCAGTATTCTTCATAGTTGAACATATC
GCTGGAGTGGACTTCAGAATCCTGCCTTCTGGGAGCACTTGGGACAGAGGAATCCGCTGC
ATTCCTGCTGGTGGACCTCGGCCGCGACACGCT

16446.2.edit

AGCGTGGTCGCGGCCGAGGTCCACCAGCAGGAATGCAGCGGATTCTCTGTCCCAAGTGC
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CACCGCCAACGCAGTCACTGGGCCCTTGCCGTGCATCCTTCCCACGCTGGTACTTTGACGTG
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16447.1.edit

TCGAGCGGCCGCCCCGGGCAGGTCCACATCGGCAGGGTCGGAGCCCTGGCCGCCATACTCG
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AGTCTCCATGTTGCAGAAGACTTTGATGGCATCCAGGTTGCAGCCTTGGTTGGGGTCAATC
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GGTTCTTGACCTCGGCCGCGACACGCT

16447.2.edit

AGCGTGGTTCGCGGCCGAGGTCAAGAAACCCCGCCCGCACCTGCCGTGACCTCAAGATGTG
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TGCCATCAAAGTCTTCTGCAACATGGAGACTGGTGAGACCTGCGTGTACCCCACTCAGCCC
AGTGTGGCCCAAGAACTGGTACATCAGCAAGAACCCCAAGGACAAGAGGCATGTCTGG
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16449.1.edit

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CCATGTTCTCTCAAAGATCATTTGTTGCCCAACACTGGGTTGCTGACCANAAGTGCCAGGAA
GCTGAATACCATTTCAGTGTCTATACCCAGGGTGGGTGACGAAAGGGGTCTTTTGAAGTGT
GGAAGGAACATCCAAGATCTCTGNTCCATGAAGATTGGGGTGTGGAAGGGTTACCAGTTG
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AATGACATAAATTGTATATTTCGGTTCCCGGTTCCAGGCCAG

16450.1.edit

TCGAGCGGCCCGCCCGGGCAGGTCCACCACACCCAATTCCTTGCTGGTATCATGGCAGCCGC
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ACCGAATATAACAATTTATGTCATTGCCCTGAAGAATAATCAGAAGAGCGAGCCCCTGATTG
GAAGGAAAAAGACAGACGAGCTTCCCCAAGTGGTAACCCCTTCCACACCCCAATCTTCATG
GACCAGAGATCTTGATGTTCTTCCACAGTTCAAAAGACCCCTTTCGTCACCCACCCCTGG
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CCCATAAGGCATAGGCCAAGAACATACCCGNCGAATGTAGGACAAGAAGCTCTNTCTCAN
ACAANCATCTCATGGGCCCCATTCCANGACACTTCTGAGTACATCANTTCATGGCATCCTG
GTGGCACTGATAAAAACCCCTTACAGTTA

16450.2.edit

AGCGTGGTTCGCGGGCGAGGTCTGTCAGAGTGGCACTGGTAGAAGTTCAGGAACCCCTGA
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CTGGAATGGGGCCCATGAGATGGTTGTCTGAGAGAGAGCTTCTTGTCTACATTTCGGCGGG
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CCANGGCGGGGCCGAAGGANCACT

16451.1.edit

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CTTANGCTTTGGAAGTGGTCATTTTCAGATGTGATTTCATCTAGATGGTGCCATGACAATGGT
GTGAACTACAAGATTGGAGAGAAGTGGGACCGTCAGGGAGAAAATGGACCTGCCCCGGC
GGCCGCTCGA

16451.2.edit

TCGAGCGGGCCCGGGCAGGTCCATTTCTCCCTGACGGTCCCACTTCTCTCCAATCTTGT
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GCCTAAGCACTGGCACAACAGTTTAAAGCCTGATTAGACATTCGTTCCCACTCATCTCCA
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CCTTCGNTGACAGAGTTGCCACGGTAACAACCTCTTCCCGAACCTTATGCCTCTGCTGGT
CTTTAGTGCCTCCACTATGATGTTGTAGGTGGTACCTCTGGTGAGGACCTCGGCCGCGAC
CACGCT

16452.1.edit

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CCTTCTGGTGGGCTGACATTCTCCAGAGTGTTGACAACACCCTGAGCTGGTCTGCTTGTC
AAAGTGTCTTAAGAGCATAGACACTCACTTCATATTTGGCGNCCACCATAAGTCCTGATA
CAACCACGGAATGACCTGTCAGGAAC

16452.2.edit

TCGAGCGGGCCCGGGCAGGTCTCAGACCGGGTTCTGAGTACACAGTCAGTGTGGTTGC
CTTGACGATGATATGGAGAGCCAGCCCCTGATTGGAACCCAGTCCACAGCTATTCCTGCA
CCAACTGACCTGAAGTTCACCTCAGGTACACCCACAAGCCTGAGCGCCCAGTGGACACCA
CCCAATGTTTCACTGCTGATATCGAGTGCAGGTGACCCCCAAGGAGAAGACCGGACCA
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GGGTGTTGTACCACTCTGGAGAATGTCAGCCCACCAAGAAGGGCTCGTGTGACAGATGC
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16453.1.edit

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TCATCCCTCTCATAAGGGTGACCAGGACGTCTTGAGCCAGTCCCGCATGCGCAGGGGGA
ATTGCGTCAGCTCAGAGTCCAGGCAAGGGGGGATGTATTTGCAAGGCCCGATGTAGTCCA
AGTGGAGCTTGTGGCCCTTCTTGGTGCCCTCCAAGGTGCACTTTGTGGCAAAGAAGTGGCA
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16453.2.edit

TCGAGCGGCCGCCCCGGGCAGGTCTGCCCAGCCCCATTGGCGAGTTTGAGAAGGNGTGCA
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CAGTTCGGCCAGACCTCGGCCGCGACCACGCT

16454.1.edit

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16454.2.edit

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16455.1.edit

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ACGGCATAATGGGAAACTGTGTAGGGGTCAAAGCACGAGTCATCCGTAGGTGGTTCAAG
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CCACGCT

16455.2.edit

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GCGGCNCGCTCGA

16456.1.edit

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TGCTGAGCTGAAGGAAAAGATTGATC

16456.2.edit

TCGAGCGGCCGCCCGGGCAGGTCCAATTGAAACAAACAGTTCTGAGACCGTTCTTCCACCA
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GAAGCTCTCAACACACATGGGCTTGCCAGGAACCATATCAACAATGGGCAGCATCACCAG
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CAGCTCAGCAAACCTTGATGCAATGTGAGCCG

16459.1.edit

TCGAGCGGCCGCCCCGGGCAGGTCCAGAGGGCTGTGCTGAAGTTTGCTGCTGCCACTGGAG
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16459.2.edit

AGCGTGNGTCGCGGCCGAGGTGCTGAATAGGCACAGAGGGCACCTGTACACCTTCAGACC
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GGATCTCTGTAGAAGTACAGATCAGGCATGACCTCCCATGGGTGTTACGGGAAATGGTG
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CCCTTGTGTTGCATGGGATGGGCAATGTCCACATAGCGCAGAGGAGAATCTGTGTTACAC
AGCGCAATGGTAGGTAGGTAAACATAAGATGCCTCCGCGAGAAGCTGGTGGTCAGCCCTG
GGGTCAAGTAACCACAAGAAGCCGTGGCTCCCGGAAGGCTGCCTGGATCTGGTTAGTGAA
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16460.1.edit

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ACGGCATAATGGGAACTGTGTAGGGGTCAAAGCACGAGTCATCCGTAGGTTGGTTCAAG
CCTTCGTTGACAGAGTTGCCCACGGTAACAACCTCCTCCCGAACCTTATGCCTCTGCTGG
GCTTTCAGNGCCTCCACTATGATGNTGTAGGGGGGCACCTCTGGNGANGACCTCGGCCGC
GACCACGCT

16460.2.edit

AGCGTGGTCGCGGCCGAGGTCCCTCACCAGAGGTGCCACCTACAACATCATAGTGGAGGCA
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AACGAAGGCTTGAACCAACCTACGGATGACTCGTGCTTTGACCCCTACACAGTTTCCCAT
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CTTANGCTTTGGAAGTGGGTCAATTCAGATGTGATTCATCTAGATGGTGCCATGACAATGG
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CGGCCGCTCGA

16461.1.edit

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CTCCATGTTGCAGAAGACTTTGATGGCATCCAGGNTGCAACCTTGGTTGGGGTCAATCCAG
TACTCTCCACTCTTCCAGCCAGAGTGGCACATCTTGAGGTACGGCAGGTGCGGNCGGGGG
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16461.2.edit

TCGAGCGGCCGCCCGGGCAGGTCTCGCGGTGCGACTGGTGATGCTGGTCCTGTTGGTCCCC
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16463.1.edit

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ATGAAGCTGTNCAAAGATCTCAGGGTGGANAAAACCAT

16463.2.edit

TCGAGCGGCCGCCCGGGCAGGTCTTCAGACTTGGACTGTGTACACTGCCAGGCTTCCAG
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16464.1.edit

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TGCCAGGATTACCGGTACATCATCNAGTATGANAAGCCTGGGCCTCCTCCCAGAGAAGNG
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GATATCNATTTTGNCAATTGGCCTTCAACAATAATTA

16464.2.edit

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ATTCAAGGTG

16465.1.edit

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16465.2.edit

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16466.2.edit

TCGAGCGGCCCGCCCGGGCAGGTCCACCATAAGTCTTGATACAACCACGGATGAGCTGTCA
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16467.2.edit

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AAGCGGTCCCTCGGCCCCGCCCTGGTGTACAGAGGCTACTATTACTGGCTGGAACCGGG
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TTGGAAGGA

01_16469.edit

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02_16469.edit

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AAACAAT

03_16470.edit

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ACGGCCACCCCATAGGCATAGGCCAAGACCATACCGCCGAATGTAGGACAAGAAGCT
CTCTCTCAGACAACCATCTCATGGGCCCCATTCCAGGACACTTCTGAGTACATCATTTTCATG
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04_16470.edit

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GGGTATGGTCTTGGCCTATGCCTTATGGGGGTGGCCGTTGTGGGCGGTGTGGTCCGCCTAA
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05_16471.edit

TCGAGCGGCCGCCCCGGGCAGGTCTCCCTTCTTGCGGCCCAGGGGCAGCGCATAGTGGGAC
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AGAAGAGATTTTAAACAAAAAACGATCTAAAAAAATTCAGAAGAAATATGATGAAAGGA
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AAGAAGTGGAGTTCTATCTTAAGAAAATCAGGGCCCAGAAATGGTGNGTCTTCAACTAATC
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TTGGCAGCCTTTTCTTTGGTTTTGCCAAAAACCTTTTGNAGAANGANACCTNNGGCGGA
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FIG. 15EE

06_16471.edit

AGCGTGGTCGCGGCCGAGGTCTGCTGCTTCAGCGAAGGGTTTCTGGCATAACCAATGATA
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TCTTTGCCCTCTAGCACATAGCCATCTGCTCGGTACACTGTCCCGGCCTTGAAGCGATGC
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TCAGGAGTCAGCTTGGCCCCCGCCGCATCCACACAGTCCGTGTGCGGGGAGGTAACAAGA
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CGANTCCCACTATGCGCTTGGCCCTGGGCCGCAANAAGGAAAAGTGGCCGGCGGCCNT
CGAAAGCCCAATTNTGGAAAAATCCATCACACTGGGNGGCCNGTCGAGCATGCATNTAN
AGGGGCCCATTTCCCCCTNANN

07_16472.edit

TCGAGCGGCCGCCCGGGCAGGTCCCCAACCAAGGCTGCAACCTGGATGCCATCAAAGTCT
TCTGCAACATGGAGACTGGTGAGACCTGCGTGTACCCCACTCAGCCCAGTGTGGCCAGA
AGAACTGGTACATCAGCAAGAACCCCAAGGACAAGAGGCATGTCTGGTTCTGGCGAGAGCA
TGACCGATGGATTCCAGTTTCAGTATGGCGGCCAGGGCTCCGACCCTGCCGATGTGGACCT
CGGCCGCGACCACGCT

08_16472.edit

AGCGTGGTCGCGGCCGAGGTCCACATCGGCAGGGTCTGGAGCCCTGGCCGCCATACTCGAA
CTGGAATCCATCGGTTCATGCTCTCGCGAACCAGACATGCCTCTTGTCTTGGGGTTCTTGG
TGATGTACCAGTTCTTCTGGGCCACACTGGGCTGAGTGGGGTACACGCAGGTCTCACCAGT
CTCCATGTTGCAGAAGACTTTGATGGCATCCAGGTTGCAGCCTTGGTTGGGGACCTGCCCG
GGCGGCCGCTCGA

09_16473.edit

TCGAGCGGCCGCCCGGGCAGGTCCACCACACCCAATTCCTTGCTGGTATCATGGCAGCCGC
CACGTGCCAGGATTACCGGCTACATCAAGTATGAGAAGCCTGGGTCTCCTCCCAGAGA
AGTGGTCCCTCGGCCCGCCCTGGTGTACAGAGGCTACTATTACTGGCCTGGAACCGGGA
ACCGAATATACAATTTATGTCATTGCCCTGAAGAATAATCAGAAGAGCGAGCCCCTGATTG
GAAGGAAAAAGACAGACGAGCTTCCCCAAGTGGTAACCCCTCCACACCCCAATCTTCATG
GACCAGAGATCTTGGATGTTCTTCCACAGTTCAAAAGACCCCTTTCGTCACCCACCCTGG
GTATGACACTGGAAATGGTATTCAGCTTCTGGCACTTCTGGTCAGCAACCCAGTGTGGG
CAACAAATGATCTTTGAGGAACATGGNTTTAGGCGGACCACACCGCCCAACCGGCCACC
CCCATAAGGCATAGGCCAAGACCATAACCGCCGAATGTAGGACAAGAAGCTNTNTNNTCAN
ACACCATNTNATGGGCCCCATTCCAGGACACTTCTGAGTACATCATTTATGNCATCTGTGG
CACTTGATGAAAACCTTACAGTTCAGGGTCTGGAACCTTTACCAGGCCTNTTACAGGAC
TNGGCCGGACNCCTTAAGCCNATTNCAACCTGGGGCGTTCTANGGTCCCACTCGNNCACTG
GNGAAAAATGGCTACTGTN

FIG. 15FF

11_16474.edit

AGCGTGGTTCGCGGCCGAGGTCCACTAGAGGTCTGTGTGCCATTGCCAGGCAGAGTCTCTG
CGTTACAAACTCCTAGGAGGGCTTGCTGTGCGGAGGGCCTGCTATGGTGTGCTGCGGTTCA
TCATGGAGAGTGGGGCCAAAGGCTGCGAGGTTGTGGTGTCTGNGAACTCCNAGGACANG
AGGGCTAAATTCATGAAGTTTGTGGATGGCCTGATGATCCACAATCGGAGACCCTGTAA
CTACTACCGTCTNACCNCCTGCTGTNCNCCCCNTTCTGCTNAANACATNGGGNTNNTNC
TTGNCCNTCCTTGGGTNGAANATNNAATNGCCTNCCCNTTCNTANCNCTACTNGNTCCANA
NTTGGCCTTTAAANAATCCNCCTTGCCCTNNNCCTGTTCANNTNTTNTNNTCGTAAACCCT
ATNANTTNATTANATNNTNNNNNNCTCACCCCCCTCCTCATTNANCCNATANGCTNNA
ANTCCTTNANNCCTCCNCCCNNTNCNCTCNTACTNANTNCTTCTNNCCATTACNNAGCT
CTTTCNTTTAANATAATGNNGCCNNGCTCTNCATNTCTACNATNTGNNAATNCCCCCNCC
CCCNANCGNNTTTTGACCTNNNAACCTCCTTTCCTCTCCCTNCNNAATTNCCNNANTTCC
NCNTTCCNNCNTTTCGGNTNNTCCCATNCTTTCANNCTTCANTCTANCNCNCTNCACT
TATTTTCCTNTCATCCCTTNTCTTTACANNCCCCCTNNTCTACTCNNCNNTTNCATTANAT
TTGAAACTNCCACNNCTANTTNCCTCNCTCTACNNTTTATTTTNCGNTCNCTCTACNTAAT
ANTTTAATNANTNTCN

12_16474.edit

TCGAGCGGCCCGCCCGGGCAGGTCTGCCAAGGAGACCCTGTTATGCTGTGGGGACTGGCTG
GGGCATGGCAGGCGGCTCTGGCTTCCCACCTTCTGTTCTGAGATGGGGGTGGTGGGCAGT
ATCTCATCTTTGGGTTCACAATGCTCACGTGGTCAGGCAGGGGCTTCTTAGGGCCAATCT
TACCAGTTGGGTCCCAGGGCAGCATGATCTTACCTTGATGCCAGCACACCCTGTCTGAG
CAACACGTGGCGCACAAGCAGTGTAACGTAGTAAGTTAACAGGGTCTCCGCTGTGGATC
ATCAGGCCATCCACAACTTCATGGATTTAGCCCTCTGTCTCGGAGTTTCCCAGACACCA
CAACCTCGCAGCCTTTGGCCCCACTCTCCATGATGAACCGCAGCACACCATAGCAGGCCCT
CCGCACAAGCAAGCCCTCCTAAGAATTTGTAAACGCANANACTCTGCTGGCAATGGCACAC
AAACCTCTAGTGGACCTCGGNCGCGACACGC

13_16475.edit

TCGAGCGGCCCGCCCGGGCAGGTCTGGTCCAGGATAGCCTGCGAGTCCTCCTACTGCTACTC
CAGACTTGACATCATATGAATCATACTGGGGAGAATAGTTCTGAGGACCAGTAGGGCATG
ATTCACAGATTCCAGGGGGGCCAGGAGAACCAGGGGACCCTGGTTGTCTGGAATACCA
GGTCACCATTTCTCCCAGGAATACCAGGAGGGCCTGGATCTCCCTTGGGGCCTTGAGGTCC
TTGACCATTAGGAGGGCGAGTAGGAGCAGTTGGAGGCTGTGGGCAAATGCACAACATTC
TCCAAATGGAATTTCTGGGTGGGGCAGTCTAATTCTTGATCCGTCACATATTATGTCATCG
CAGAGAACGGATCCTGAGTCACAGACACATATTTGGCATGGTTCTGGCTTCCAGACATCTC
TATCCGNCATAGGACTGACCAAGATGGGAACATCCTCCTTCAACAAGCTTNTGTTGTGCC
AAAAATAATAGTGGGATGAAGCAGACCGAGAAGTANCCAGCTCCCCTTTTGCACAAAGC
NTCATCATGTCTAAATATCAGACATGAGACTTCTTTGGGCAAAAAAGGAGAAAAAGAAAA
AGCAGTTCAAAGTANCCNCCATCAAGTTGGTTCTTGCCNTTCAGCACCCGGGCCCCGTT
ATAAAACACCTNGGGCCGGACCCCCCTT

14_16475.edit

AGCGTGGTCGCGGCCGAGGTGTTTTATGACGGGCCCCGGTGCTGAAGGGCAGGGAACAACCT
TGATGGTGCTACTTTGAACTGCTTTTCTTTCTCCTTTTGCACAAAGAGTCTCATGTCTGA
TATTTAGACATGATGAGCTTTGTGCAAAAGGGGAGCTGGCTACTTCTCGCTCTGCTTCATC
CCACTATTATTTGGCACAACAGGAAGCTGTTGAAGGAGGATGTTCCCATCTTGGTCAGTC
CTATGCGGATAGAGATGTCTGGAAGCCAGAACCATGCCAAATATGTGTCTGTGACTCAGG
ATCCGTTCTCTGCGATGACATAATATGTGACGATCAAGAATTAGACTGCCCCAACCCAGAA
ATTCCATTTGGAGAATGTTGTGCAGTTTGCCACAGCCTCCAAGTCTCTACTCGCCCTCC
TAATGGTCAAGGACCTCAAGGCCCAAGGGAGATCCAGGCCCTCCTGGTATTCTCTGGGAG
AAATGGTGACCCCTGGTATTCCAGGACAACCAGGGTCCCCCTGGTCTCCTGGCCCCCTGGA
ATCNGNGAATCATGCCCTACTGGTCTCAAACCTATTCTCCANATGATTCATATGATGTC
AAGTCTGGGATAGCNAGTANGGANGGACTCGCAGGCTATTCTGGACCANACCTGCCGGGG
GGGCGTTTCGAAAGCCCGAATCTGCANANNNTNCNTTCACACTGGCGGCCGTCGAGCTGCTTT
AAAAGGGCCATTCCNCCTTTAGNGNGGGGGANTACAATTACTNGGCGGCGTTTTANANCG
CGNGNCTGGGAAAT

15_16476.edit

AGCGTGGTCGCGGCCGAGGTCCACATCGGCAGGGTCCGAGCCCTGGCCGCCATACTCGAA
CTGGAATCCATCGGTCATGCTCTCGCCGAACCAGACATGCCTCTTGTCTTGGGGTCTTTCG
TGATGTACCAGTTCTTCTGGGCCACACTGGGCTGAGTGGGGTACACGCAGGTCTCACCAGT
CTCCATGTTGCAGAAGACTTTGATGGCATCCAGGTTGCAGCCTTGGTTGGGGTCAATCCAG
TACTCTCCACTCTTCCAGTCAGAGTGGCACATCTTGAGGTACGGCAGGTGCGGGCGGGGT
TCTTGCGGCTGCCCTCTGGGCTCCGGATGTTCTCGATCTGCTGGCTCAGGCTCTTGAGGGTG
GTGTCCACCTCGAGGTACGGTCACGAACCACATTGGCATCATCAGCCCGGTAGTAGCGGC
CACCATCGTGAGCCTTCTCTTGANGTGGCTGGGGCAGGAACTGAAGTCGAAACCAGCGCT
GGGAGGACCAGGGGGACCAANAGGTCCAGGAAGGGCCCCGGGGGGGACCAACAGGACCAG
CATCACCAAGTGCGACCCGCGAGAACCTGCCCGGCCGNCCGCTCGAA

16_16476.edit

TCGAGCGNNCGCCCCGGGCAGGTCTCGCGGTGCACTGGTGATGCTGGTCTGTTGGTCCCC
CCGGCCCTCCTGGACCTCCTGGTCCCCCTGGTCTCCAGCGCTGGTTTCGACTTCAGCTTC
CTGCCCCAGCCACCTCAAGAGAAGGCTCACGATGGTGGCCGCTACTACCGGGCTGATGAT
GCCAATGTGGTTCGTGACCGTGACCTCGAGGTGGACACCACCCTCAAGAGCCTGAGCCAG
CAGATCGAGAACATCCGGAGCCCAGAGGGCAGCCGCAAGAACCCCGCCCGCACCTGCCGT
GACCTCAAGATGTGCCACTCTGACTGGAAGAGTGGAGAGTACTGGATTGACCCCAACCAA
GGCTGCAACCTGGATGCCATCAAAGTCTTCTGCAACATGGAGACTGGTGAGACCTGCGTGT
ACCCCACTCAGCCCAGTGTGGCCCAGAAGAACTGGTACATCAGCAAGAACCCCAAGGACA
AGAGGCATGTCTGGTTCGGCGAGAGCATGACCGATGGATTCCAGTTCGAGTATGGCGGCC
AGGGCTCCCAACCTGCCGATGTGGACCTCCGGCCGCGACCACTT

17_16477.edit

TNGAGCGGCCCGCCCGGGCAGGNTGNNAACGCTGGTCTGCTGGTCTCTGGCAAGGCTG
GTGAAGATGGTCACCCTGGAAAACCCGGACGACCTGGTGAGAGAGGAGTTGTTGGACCAC
AGGGTGCTCGTGGTTTCCCTGGAACCTCTGGACTTCCTGGCTTCAAAGGCATTAGGGGACA
CAATGGTCTGGATGGATTGAAGGGACAGCCCGGTGCTCCTGGTGTGAAGGGTGAACCTGG
TGCCCCCTGGTGAAAATGGAACCTCCAGGTCAAACAGGAGCCCGTGGGCTTCTGGTGAGAG
AGGACCGTGTGGTGCCCCCTGGCCCANACCTCGGCCGCGACCACGCTAAGCCCGAATTTCC
AGCACACTGGNGGCCGTTACTANTGGATCCGAGCTCGGTACCAAGCTTGGCGTAATCATG
GTCATAGCTGTTTCTGNGTGAAATTGTTATCCGCTCACAATTTACACANCATACGAAGC
CGGAAAGCATAAAGTGTAAGCCCTGGGGTGCTAATGAGTGAGCTAACTCNCATTAAATT
GCGTTGCGCTCACTGCCCCGCTTTTCCANNNGGAAACCNTGGCNTNGCCNGCTTGCNTTAA
NTGAAATCCGCCNACCCCGGGGAAAGNCGGTTTGCNGTATTGGGGCNCCTTTTCCCTTT
CCTCGGNTTACTTGANTTANTGGGCTTTGGNCGNTTCGGGTGNGGGCGANCNGGTTCAACN
TCACNCCAAAGGNGGNAANACGGTTTTCCANAATCCGGGGGNTANCCCAANGNAAAAC
ATNNGNCNAANGGGCT

18_16477.edit

AGCGTGGTTNGCGGCCGAGGTCTGGGCCAGGGGCACCAACACGTCCTCTCTACCAGGAA
GCCACGGGCTCCTGTTTGACCTGGAGTTCCATTTTACCAGGGGCACCAGGTTACCCCTT
CACACCAGGAGACCCGGGCTGTCCCTTCAATCCATNCAGACCATTTGTGNCCCTAATGCCT
TTGAAGCCAGGAAGTCCAGGAGTTCCAGGGAAACCACCGAGCACCTGTGGTCCAACAAC
TCCTCTCTACCAGGTCTGCCGGGTTTTCCAGGTGACCATCTTACCAGCCTTGCCAGGA
GGACCAGCAGGACCAGCGTTACCAACCTGCCCCGGCGGCCGCTCGA

21_16479.edit

TCGAGCGGCCCGCCCGGGCAGGTCCATTTTCTCCCTGACGGTCCCACTTCTCTCCAATCTTGT
AGTTCACACCATTGTGATGGCACCATCTAGATGAATCACATCTGAAATGACCACTTCCAAA
GCCTAAGCACTGGCACAACAGTTTAAAGCCTGATTCAGACATTCGTTCCCACTCATCTCCA
ACGGCATAATGGGAAACTGTGTAGGGGTCAAAGCACGAGTCATCCGTAGGTTGGTTCAAG
CCTTCGTTGACAGAGTTGCCACGGTAACAACCTCTTCCCGAACCTTATGCCTCTGCTGGTC
TTTCAGTGCCTCCACTATGATGTTGTAGGTGGCACCTCTGGTGAGGACCTCGGCCGCGACC
ACGCT

22_16479.edit

AGCGTGGTCGCGGCCGAGGTCTCACCAGAGGTGCCACCTACAACATCATAGTGAGGGCA
CTGAAAGACCAGCAGAGGCATAAGGTTCCGGAAGAGGTTGTTACCGTGGGCAACTCTGTC
AACGAAGGCTTGAACCAACCTACGGATGACTCGTGCTTTGACCCCTACACAGTTTCCATT
ATGCCGTTGGAGATGAGTGGGAACGAATGTCTGAATCAGGCTTTAAACTGTTGTGCCAGTG
CTTAGGCTTTGGAAGTGGTCATTTCAAGATGTGATTCATCTAGATGGTGCCATGACAATGG
TGTGAACTACAAGATTGGAGAGAAGTGGGACCGTCAGGGAGAAAATGGACCTGCCCCGG
CCGGCCGCTCGA

FIG. 15H

24_16480.edit

TCGAGCGNNCGCCCGGGCAGGTCCAGTAGTGCTTCGGGACTGGGTTCACCCCCAGGTCTG
CGGCAGTTGTACAGCGCCAGCCCCGCTGGCCTCCAAAGCATGTGCAGGAGCAAATGGCA
CCGAGATATTCCTTCTGCCACTGTTCTCCTACGTGGTATGTCTTCCCATCATCGTAACACGT
TGCCTCATGAGGGTCACACTTGAATTCTCCTTTTCCGTTCCCAAGACATGTGCAGCTCATTT
GGCTGGCTCTATAGTTTGGGGAAAAGTTTGTGAAACTGTGCCACTGACCTTTACTTCCTCCT
TCTCTACTGGAGCTTTCGTACCTTCCACTTCTGCTGTTGGTAAAATGGTGGATCTTCTATCA
ATTCATTGACAGTACCCACTTCTCCCAAACATCCAGGGAAATAGTGATTTAGAGCGATT
AGGAGAACCAAATTATGGGGCAGAAATAAGGGGCTTTTCCACAGGTTTTCTTTGGAGGA
AGATTTAGTGGTGACTTTAAAAGAATACTCAACAGTGTCTTCATCCCCATAGCAAAAAGAA
GAAACNGTAAATGATGGAANGCTTCTGGAGATGCCNNCATTAAAGGGACNCCCAGAACTT
CACCATCTACAGGACCTACTTCAGTTTACANNAAGNCACATANTCTGACTCANAAAGGAC
CCAAGTAGCNCCATGGNCAGCACTTTNAGCCTTTCCCCTGGGGAAAAANNTTACNTTCTTAA
ANCCTNGGCCNNGACCCCTTAAGNCCAAATTNTGGAAAANTTCCNTNCCNNCTGGGGGGC
NGTTCNACATGCNTTTNAAGGGCCCAATTNCCCCNT

25_16481.edit

TCGAGCGGCCCGCCCGGGCAGGTGTGCGAGTCCAGCACGGGAGGCGTGGTCTTGTAGTTGT
TCTCCGGCTGCCATTGCTCTCCCACTCCACGGCGATGTGCTGGGATAGAAGCCTTTGAC
CAGGCAGGTACAGGTGACCTGGTTCTTGGTCATCTCCTCCCGGGATGGGGGCAGGGTGTAC
ACCTGTGGTTCTCGGGGCTGCCCTTTGGCTTTGGAGATGGTTTTCTCGATGGGGGCTGGGA
GGGCTTTGTTGGAGACCTTGCACTTGTACTCCTTGCCATTAGCCAGTCTGCTGGTGAGGAC
GGTGAGGACGCTGACCACACGGTACGTGCTGTTGTACTGCTCCTCCCGCGGCTTTGTCTTG
GCATTATGCACCTCCACGCGTCCACGTACCAGTTGAACCTGACCTCAGGGTCTTCGTGGC
TCACGTCCACCACCACGCATGTAACCTCAGACCTCGGCCGCGACACGCT

26_16481.edit

AGCGTGGTTCGCGGCCGAGGTCTGAGGTTACATGCGTGGTGGTGGACGTGAGCCACGAAGA
CCCTGAGGTCAAGTTCAACTGGTACGTGGACGGCGTGGAGGTGCATAATGCCAAGACAAA
GCCGCGGGAGGAGCAGTACAACAGCACGTACCGTGTGGTCAGCGTCTCACCCTCCTGCA
CCAGGACTGGCTGAATGGCAAGGAGTACAAGTGCAAGGTCTCCAACAAAGCCCTCCAGC
CCCCATCGAGAAAACCATCTCCAAAGCCAAAGGGCAAGCCCCGAGAACCACAGGTGTACA
CCCTGCCCCCATCCCGGGAGGAGATGACCAAGAACCAGGTGAGCCTGACCTGCCTGGTCA
AAGGCTTCTATCCCAGCGACATCGCCGTGGAGTGGGAGAGCAATGGGCAGCCGGAACA
ACTACAAGACCACGCTCCCGTGTGGACTCCGACACCTGCCCCGGCGGCGCTCGA

27_16482.edit

TCGAGCGGCCCGCCCGGGCAGGTGGAATGGCTCCTCGCTGACCACCCCGGTGCTGGTGGTGG
GTACAGAGCTCCGATGGGTGAAACCATTGACATAGAGACTGTCCCTGTCCAGGGTGTAGG
GGCCAGCTCAGTGATGCCGTGGGTGAGTGGCTGAGCTTCCAGTACAGCCGCTCTCTGTC
CAGTCCAGGGCTTTTGGGGTCAGGACGATGGGTGCAGACAGCATCCACTCTGGTGGCTGC
CCCATCCTTCTCAGGCCTGAGCAAGGTGAGTCTGCAACCAGAGTACAGAGAGCTGACACT
GGTGTCTTGAACAAGGGCATAAGCAGACCCTGAAGGACACCTCGGCCGCGACACGCT

28_16482.edit

AGCGTGGTTCGCGGCCGAGGTGTCCTTCAGGGTCTGCTTATGCCCTTGTTCAAGAACACCAG
TGTCAGCTCTCTGTACTCTGGTTGCAGACTGACCTTGCTCAGGCCTGAGAAGGATGGGGCA
GCCACCAGAGTGGATGCTGTCTGCACCCATCGTCTGACCCAAAAGCCCTGGACTGGACA
GAGAGCGGCTGTACTGGAAGCTGAGCCAGCTGACCCACGGCATCACTGAGCTGGGGCCCT
ACACCCTGGACAGGGACAGTCTCTATGTCAATGGTTTCACCCATCGGAGCTCTGTACCCAC
CACCAGCACCGGGGTGGTCAGCGAGGAGCCATTCAACCTGCCCCGGGCGGCCGCTCGA

29_16483.edit

AGCGTGGTTCGCGGCCGAGGTGTCAGAGTGGCACTGGTAGAAGTTCCAGGAACCCTGA
ACTGTAAGGGTTCTTCATCAGTGCCAACAGGATGACATGAAATGATGTACTCAGAAGTGTC
CTGGAATGGGGCCCATGAGATGGTTGTCTGAGAGAGAGCTTCTTGTCCTACATTCGGCGGG
TATGGTCTTGGCCTATGCCTTATGGGGGTGGCCGTTGTGGGCGGTGTGGTCCGCCTAAAAC
CATGTTCTCAAAGATCATTTGTTGCCCAACACTGGGTTGCTGACCAGAAGTGCCAGGAAG
CTGAATACCATTTCCAGTGTATACCCAGGGTGGGTGACGAAAGGGGTCTTTGAACTGTG
GAAGGAACATCCAAGATCTCTGGTCCATGAAGATTGGGGTGTGGAAGGGTTACCAGTTGG
GGAAGCTCGTCTGTCTTTTCCTTCCAATCAGGGGCTCGCTCTTCTGATTATTCTTCAGGGC
AATGACATAAATTTGTATATTCGGTCCCGGTTCCAGGCCAGTAATAGTAGCCTCTGTGACAC
CAGGGCGGGGCGGAGGGACCTTCTNTTGGAAAGAGACCAGCTTCTCATACTTGATGATGA
GNCCGGTAATCCTGGCACGTGGNGGTTGCATGATNCCACCAAGGAAATNGGNGGGGGNG
GACCTGCCCCGGCGGCCGTTCNAAAGCCCAATTCCACACACTTGGNGGCCGTACTATGGATC
CCTCNGTCCAACCTTGGNGGAATATGGCATAACTTTT

31_16484.edit

TCGAGCGGCCGCCCCGGGCAGGTCTTACCTTTTCAGCAAGTGGGAAGGTGTAATCCGTCT
CCACAGACAAGGCCAGGACTCGTTTGTACCCGTTGATGATAGAATGGGGTACTGATGCAA
CAGTTGGGTAGCCAATCTGCAGACAGACACTGGCAACATTGCGGACACCCTCCAGGAAGC
GAGAATGCAGAGTTTCCTCTGTGATATCAAGCACTTCAGGGTTGTAGATGCTGCCATTGTC
GAACACCTGCTGGATGACCAGCCCAAAGGAGAAGGGGGAGATGTTGAGCATGTTTCAGCAG
CGTGGCTTCGCTGGCTCCCACTTTGTCTCCAGTCTTGATCAGACCTCGGCCGCGACACGCT

37_16487.edit

AGCGTGGTTCGCGGCCGAGGTCTGTCCTACAGTCTTCAGGACTCTACTCCCTCAGCAGCGTG
GTGACCGTGCCCTCCAGCAACTTCGGCACCCAGACCTACACCTGCAACGTAGATCACAAGC
CCAGCAACACCAAGGTGGACAAGAGAGTTGAGCCCAAATCTTGTGACAAAACCTCACACAT
GCCACCGTGCCACGACCTGAACTCCTGGGGGGACCGTCAGTCTTCCTCTTCCCCCGCAT
CCCCCTTCAAACCTGCCCCGGGCGGCCGCTCG

FIG. 15KK

38_16487.edit

CGAGCGGCCGCCCCGGGCAGGTTTGGGAAGGGGGATGCGGGGGAAGAGGAAGACTGACGGT
CCCCCAGGAGTTCAGGTGCTGGGCACGGTGGGCATGTGTGAGTTTGTCAAGATTG
GCTCAACTCTCTTGTCCACCTTGGTGTGCTGGGCTTGTGATCTACGTTGCAGGTGTAGGTC
TGGGTGCCGAAGTTGCTGGAGGGCACGGTCACCACGCTGCTGAGGGAGTAGAGTCCTGAG
GACTGTAGGACAGACCTCGGCCGCGACCACGCT

39_16488.edit

NGGNNGGTCCGGNCNGNCAGGACCACTCNTCTTCGAAATA

41_16489.edit

AGCGTGGTCGCGGCCGAGGTCCTCACTTGCCTCCTGCAAAGCACCGATAGCTGCGCTCTGG
AAGCGCAGATCTGTTTTAAAGTCCTGAGCAATTTCTCGCACCAGACGCTGGAAGGGAAGTT
TGCGAATCAGAAGTTCAGTGGACTTCTGATAACGTCTAATTTACGGAGCGCCACAGTACC
AGGACCTGCCCCGGCGGCCGCTCGA

42_16489.edit

TCGAGCGGCCGCCCCGGGCAGGTCCTGGTACTGNGGCGCTCCGTGAAATTAGACGTTATCA
GAAGTCCACTGAACTTCTGATTCGCAAACCTTCCCTTCCAGCGTCTGGTGCAGAAATTGCT
CAGGACTTTAAACAGATCTGCGCTTCCAGAGCGCAGCTATCGGTGCTTTGCAGGAGGCA
AGTGAGGACCTCGGCCGCGACCACGCT

45_16491.edit

TCGAGCGGCCGCCCCGGGCAGGTCCACATCGGCAGGGTCGGAGCCCTGGCCGCCATACTCG
AACTGGAATCCATCGGTTCATGCTCTCGCCGAACCAGACATGCCTCTTGTCTTGGGGTTCT
TGCTGATGTACCAGTTCTTCTGGGCCACACTGGGCTGAGTGGGGTACACGCAGGTCTCACC
AGTCTCCATGTTGCAGAACTTTGATGGCATCCAGGTTGCAGCCTTGGTTGGGGTCAATC
CAGTACTCTCACTCTTCCAGTCAGAGTGGCACATCTTGAGGTACGGCAGGTGCGGGCGG
GGTTCTTGACCTCGGCCGCGACCACGCT

FIG. 15LL

46_16491.edit

GTGGGNTTGAACCCNTTTNANCTCCGCTTGGTACCGAGCTCGGATCCACTAGTAACGGCCG
CCAGTGTGCTGGAATTCGGCTTAGCGTGGTCGCGGCCGAGGTCAAGAACCCCGCCCGCAC
CTGCCGTGACCTCAAGATGTGCCACTCTGACTGGAAGAGTGGAGAGTACTGGATTGACCC
CAACCAAGGCTGCAACCTGGATGCCATCAAAGTCTTCTGCAACATGGAGACTGGTGAGAC
CTGCGTGTACCCCACTCAGCCCAGTGTGGCCCAAGAAGAACTGGTACATCAGCAAGAACCC
CAAGGACAAGAGGCATGTCTGGTTCCGGCGAGAGCATGACCGATGGATTCCAGTTCGAGTA
TGGCGGCCAGGGCTCCGACCCTGCCGATGTGGACCTGCCCGGGCGGCCGCTCGA

47_16492.edit

AGCGTGGTCGCGGCCGAGGTCTGGGATGCTCCTGCTGTACAGTGAGATATTACAGGATC
ACTTACGGAGAAACAGGAGGAAATAGCCCTGTCCAGGAGTTCACTGTGCCTGGGAGCAAG
TCTACAGCTACCATCAGCGGCCTTAAACCTGGAGTTGATTATACCATCACTGTGTATGCTG
TCACTGGCCGTGGAGACAGCCCCGCAAGCAGCAAGCCAATTTCCATTAATTACCGAACAG
AAATTGACAAACCATCCAGATGCAAGTGACCGATGTTTCAGGACAACAGCATTAGTGTC
AGTGGCTGCCTTCAAGTTCCCTGTTACTGGTTACAGAGTAACCACCACTCCCAAAAATGG
ACCAGGACCAACAAAACTAAAACTGCAGGTCCAGATCAAACAGAAATGACTATTGAAG
GCTTGCAGCCACAGTGGAGTATGTGGTTAAGTGTCTATGCTCAGAATCCAAGCGGAGAG
AAGTCAGCCTCTGGTTCAGACTGNAAGTAACCAACATTGATCGCCTAAAGGACTGGCATT
ACTGATGNGGATGCCGATTCCATCAAAATTGNTTGGGAAAACCCACAGGGGCAAGTTTNC
ANGTCNAGGNGGACCTACTCGAGCCCTGAGGATGGAATCCTTGACTNTTCTTNNCCTGAT
GGGGAAAAAAACCTTNAAACTTGAAGGACCTGCCCGGGCGGCCGTNCAAAACCCAATT
CCACCCCTTGGGGGCGTTCATGGGNCCCACTCGGACCAAACTTGGGGTAAN

48_16492.edit

TCGAGCGGCCCGCCCGGGCAGGTCCTTGCAGCTCTGCAGTGTCTTCTTACCATCAGGTGCA
GGGAATAGCTCATGGATTCCATCCTCAGGGCTCGAGTAGGTCACCCTGTACCTGGAAACTT
GCCCCTGTGGGCTTCCCAAGCAATTTTGATGGAATCGGCATCCACATCAGTGAATGCCAG
TCCTTTAGGGCGATCAATGTTGGTTACTGCAGTCTGAACCAGAGGCTGACTCTCTCCGCTT
GGATTCTGAGCATAGACACTAACCACATACTCCACTGTGGGCTGCAAGCCTTCAATAGTCA
TTTCTGTTTGATCTGGACCTGCAGTTTTAGTTTTTGTGGTCTGCTGGTCCATTTTTGGGAGTG
GTGGTTACTCTGTAACCAGTAACAGGGGAACTTGAAGGCAGCCACTTGACACTAATGCTGT
TGTCTGAACATCGGTCACTTGCATCTGGGATGGTTTGTCAATTTCTGTTCCGTAATTAATG
GAAATTGGCTTGCTGCTTGGGGGCTTGTCTCCACGGCCAGTGACAGCATACACAGTGATG
GTATAATCAACTCCAGGTTTAAGCCGCTGATGGTAGCTGAAACTTTGCTCCAGGCACAAGT
GAACTCCTGACAGGGCTATTTCTNCTGTTCTCCGTAAGTGATCCTGTAATATCTCACTGGG
ACAGCAGGANGCATTCCAAAACTTCGGGCGNGACCCCTAAGCCGAATTNTGCAATATNC
ATCACACTGGCGGGGCTCGANCATTCAATAAAAGGCCCAATCNCCCTATAGGGAGTNT
ANTACAATTNG

49_16493.edit

TCGAGCGGCCGCCCGGGCAGGTCACTTTTGGTTTTTGGTCATGTTTCGGTTGGTCAAAGATA
AAAATAAGTTTGAGAGATGAATGCAAAGGAAAAAATATTTTCAAAGTCCATGTGAAA
TTGTCTCCCATTTTTTGGCTTTGAGGGGGTTCAGTTTGGGTGCTTGTCTGTTTCCGGGT
GGGGGAAAGTTGGTTGGGTGGGAGGGAGCCAGGTGGGATGGAGGGAGTTTACAGGAA
GCAGACAGGGCCAACGTCG

55_16496.edit

AGCGTGGTCGCGGCCGAGGTCCTACCAGAGGTGCCACCTACAACATCATAGTGGAGGCA
CTGAAAGACCAGCAGAGGCATAAGGTTTCGGGAAGAGGTTGTTACCGTGGGCAACTCTGTC
AACGAAGGCTTGAACCAACCTACGGATGACTCGTGCTTTGACCCCTACACAGTTTCCCAT
ATGCCGTTGGAGATGAGTGGGAACGAATGTCTGAATCAGGCTTTAAACTGTTGTGCCAGTG
CTTAGGCTTTGGAAGTGGTCATTTTCAAGATGTGATTCATCTAGATGGTGCCATGACAATGGT
GTGAATAACAAGATTGGAGAGAAGTGGGACCGTCAGGGAGAAAAATGGACCTGCCCCGGC
GGCCGCTCGA

56_16496.edit

TCGAGCGGCCGCCCGGGCAGGTCCATTTTCTCCCTGACGGTCCCACTTCTCTCCAATCTTGT
AGTTCACACCATTTGTATGGCACCATCTAGATGAATCACATCTGAAATGACCACTTCCAAA
GCCTAAGCACTGGCACAACAGTTTAAAGCCTGATTGAGACATTCGTTCCCACTCATCTCCA
ACGGCATAATGGGAAACTGTGTAGGGGTCAAAGCACGAGTCATCCGTAGGTTGGTTCAAG
CCTTCGTTGACAGAGTTGCCACGGTAACAACCTCTCCCCGAACCTTATGCCTCTGCTGGTC
TTTCAGTGCCTCCACTATGATGTTGTAGGTGGCACCTCTGGTGAGGACCTCGGCCCGGACC
ACGCT

59_16498.edit

TCGAGCGGCCGCCCGGGCAGGTCCACCATAAGTCCTGATACAACCACGGATGAGCTGTCA
GGAGCAAGGTTGATTTCTTTTCATTGGTCCGGTCTTCTCCTTGGGGGTCACCCGCACTCGATA
TCCAGTGAGCTGAACATTGGGTGGTGTCCACTGGGCGCTCAGGCTTGTGGGTGTGACCTGA
GTGAATTCAGGTCAAGTTGGTGCAGGAATAGTGGTTACTGCAGTCTGAACCAGAGGCTGA
CTCTCTCCGCTTGGATTCTGAGCATAGACATAACACATACTCCACTGTGGGCTGCAAGC
CTTCAATAGTCATTTCTGTTTGTATCTGGACCTGCAGTTTATGTTTTTGTGGTCTGGTCCAT
TTTTGGGAGTGGTGGTTACTCTGTAACCAAGTAACAGGGGAACCTGAAAGGCAGCCACTTGAC
ACTAATGCTGTTGTCTGAACATCGGTCACTTGATCTGGGATGGTTTGNCAATTTCTGTTT
GGTAATTAATGGAAATTGGCTTGCTGCTTGCGGGGCTGTCTCCACGGCCAGTGACAGCATA
CACAGNGATGGNATNATCAACTCCAAGTTTAAGGCCCTGATGGTAACTTTAAACTTGCTCC
CAGCCAGNGAACTTCCGGACAGGGTATTTCTTCTGGTTTTCCGAAAGNGANCCTGGAATNN
TCTCCTTGANCAGAAGGANCNTCCAAAACCTGGGCCGGAACCCCTT

FIG. 15NN

60_16473.edit

AGCGTGGTCGCGGCCGAGGTCCTGTCTGAGAGTGGCACTGGTAGAAGTTCAGGAACCCCTGA
ACTGTAAGGGTTCTTCATCAGTGCCAACAGGATGACATGAAATGATGTACTCAGAAGTGTC
CTGGAATGGGGCCCATGAGATGGTTGTCTGAGAGAGAGCTTCTGTCTACATTTCGGCGGG
TATGGTCTTGGCCTATGCCTTATGGGGGTGGCCGTTGTGGGCGGTGTGGTCCGCTAAAAC
CATGTTCCCTCAAAGATCATTGTTGCCCAACACTGGGTTGCTGACCAGAAGTGCCAGGAAG
CTGAATACCATTTCAGTGTCATACCCAGGGTGGGTGACGAAAGGGGTCTTTGAACTGTG
GAAGGAACATCCAAGATCTCTGGTCCATGAAGATTGGGGTGTGGAAGGGTTACCAAGTTGG
GGAAGCTCGTCTGTCTTTTCCCTTCCAATCAGGGGCTCGCTCTTCTGATTATTCTTCAGGGC
AATGACATAAATTGTATATTCGGTTCCCGGTTCCAGGCCAGTAATAGTAGCCTCTTGTGAC
ACCAGGCGGGGCCANGGACCACTTCTCTGGGANGAGACCCAGCTTCTCATACTTGATGAT
GTAACCCGGTAATCCTGCACGTGGCGGCTGNCATGATACCANCAAGGAATTGGGTGNGGN
GGACCTGCCCGCGGCCCTCNA

60_16498.edit

AGCGTGGTCGCGGCCGAGGTCCTGGGATGCTCCTGTCTCACAGTGAGATATTACAGGATC
ACTTACGGAGAAACAGGAGGAAATAGCCCTGTCCAGGAGTTCACTGTGCCTGGGAGCAAG
TCTACAGCTACCATCAGCGGCCCTTAAACCTGGAGTTGATTATACCATCACTGTGTATGCTG
TCACTGGCCGTGGAGACAGCCCCGCAAGCAGCAAGCCAAATTTCCATTAATTACCGAACAG
AAATTGACAAACCATCCCAGATGCAAGTGACCGATGTTTACAGGACAACAGCATTAGTGTCA
AGTGGCTGCCTTCAAGTTCCCTGTACTGGTTACAGAGTAACCACCACTCCCAAAAATGG
ACCAGGACCAACAAAACTAAACTGCAGGTCCAGATCAAACAGAAATGACTATTGAAG
GCTTGCAGCCCCACAGTGGAGTATGTGGTTAGTGTCTATGCTCAGAATCCAAGCGGAGAGA
GTCAGCCTCTGGTTCAGACTGCAGTAACCACTATTCCTGCACCAACTGACCTGAAGTTCAC
TCAGGTACACCCACAAGCCTGAGCCGCCAGTGGACACCAACCAATGTTCACTCACTGGAT
ATCGAGTGCGGGTGACCCCCAAGGAGAAGACCCGGACCCATGAAAGAAATCAACCTTGCT
CCTGACAGCTCATCCGNGGGTGTATCAGGACTTATGGGGGACTGCCCCGGCNGGCCGNTC
GAAANCGAATTNTGAAATTTCCCTCNCACCTGGGNGGCGNTTCGAGCTTNCTINTANANGGC
CCAATTCNCCTNTAGNGGGTCGTN

61_16499.edit

AGCGTGGTCGCGGCCGAGGTCNAGGA

62_16483.edit

TCGAGCGGCCCGCCGGGCAGGTCCACCACACCCAATTCCTTGCTGGTATCATGGCAGCCGC
CACGTGCCAGGATTACCGGCTACATCATCAAGTATGAGAAGCCTGGGTCTCCTCCCAGAGA
AGTGGTCCCTCGGCCCCGCCCTGGTGTACAGAGGCTACTATTACTGGCCTGGAACCGGGA
ACCGAATATACAATTTATGTCAATTGCCCTGAAGAATAATCAGAAGAGCGAGCCCCTGATTG
GAAGGAAAAAGACAGACGAGCTTCCCCAACTGGTAACCCCTCCACACCCCAATCTTCATG
GACCAGAGATCTTGGATGTTCTTCCACAGTTCAAAAGACCCCTTTCGTCACCCACCCTGG
GTATGACACTGGAATGGTATTCAGCTTCTTGGCACTTCTGGTCAGCAACCCAGTGTGGG
CAACAAATGATCTTTGAGGAACATGGTTTTAGGCGGACCACACCGCCCAACCGGGACC
CCCATAAGGNATAGGCCAAGACCATAACCCGCGCAATGTAGGACAAGAAGCTCTNTCTCA
ACAACCATCTCATGGGCCCCATTCCAGGACACTTCTGAGTACATCATTTTCATGTATCCTG
GTGGGCACTTGATGAANAACCCCTACAGTTTACGGGTTCTTGGAACTTCTACCAGNGCCACT
TCTGACAGGANCTTGGGCGNGACCAACCT

FIG. 1500

63_16500.edit

AGCGTGGTCGCGGCCGAGGTCCATTTTCTCCCTGACGGTCCCACTTCTCTCCAATCTTGTAG
TTCACACCATTTGTCATGGCACCATCTAGATGAATCACATCTGAAATGACCACTTCCAAAGC
CTAAGCACTGGCACAACAGTTTAAAGCCTGATTGACATTCGTTCCCACTCATCTCCAAC
GGCATAATGGGAAACTGTGTAGGGGTCAAAGCACGAGTCATCCGTAGGTTGGTTCAAGCC
TTCGTTGACAGAGTTGCCCACGGTAACAACCTCTTCCCGAACCTTATGCCTCTGCTGGTCTT
TCAGTGCCTCCACTATGATGTTGTAGGTGGCACCTCTGGTGAGGACCTGCCCCGGGCGGCC
GCTCGA

64_16493.edit

AGCGTGGTCGCGGCCGAGGTGTGCCCCAGACCAGGAATTCGGCTTCGACGTTGGCCCTGTC
TGCTTCCTGTAAACTCCCTCCATCCCAACCTGGCTCCCTCCCACCCAACCAACTTTCCCCC
AACCCGGAACAGACAAGCAACCCAACTGAACCCCTCAAAAGCCAAAAAATGGGAG
ACAATTTACATGGACTTTGAAAAATATTTTTTCTTTGCATTCATCTCTCAAACTTAGTT
TTTATCTTTGACCAACCGAACATGACCAAAAACCAAAAGTGACCTGCCCGGGCGGCCGCTC
GA

64_16500.edit

TCGAGCGGCCGCCCCGGGCAGGTCCTCACCAGAGGTGCCACCTACAACATCATAGTGGAGG
CACTGAAAGACCAGCAGAGGCATAAGGTTGCGGAAGAGGTTGTTACCGTGGGCAACTCTG
TCAACGAAGGCTTGAACCAACCTACGGATGACTCGTGCTTTGACCCCTACACAGTTTCCCA
TTATGCCGTTGGAGATGAGTGGGAACGAATGTCTGAATCAGGCTTTAAACTGTTGTGCCAG
TGCTTAGGCTTTGGAAGTGGTCATTTGAGATGTGATTCATCTAGATGGTGCCATGACAATG
GTGTGAACTACAAGATTGGAGAGAAGTGGGACCGTCAGGGAGAAAATGGACCTCGGCCG
CGACCACGCT

16501.edit

TCGAGCGGCCGCCCCGGGCAGGTACCGGGGTGGTCAGCGAGGAGCCATTACACTGAACTT
CACCATCAACAACCTGCGGTATGAGGAGAACATGCAGCACCCCTGGCTCCAGGAAGTTCAA
CACCACGGAGAGGGTCCTTCAGGGCCTGCTCAGGTCCCTGTTCAAGAGCACCAGTGTTGGC
CCTCTGTAATCTGGCTGCAGACTGACTTTGCTCAGACCTGAGAAACATGGGGCAGCCACTG
GAGTGGACGCCATCTGCACCCCTCCGCTTGATCCCACTGGTNCTGGACTGGACANANAGCG
GCTATACTTGGGAGCTGANCCNAACCTTTGGCGGNGACNCCNCTT

16501.2.edit

GAGGACTGGCTCAGCTCCCAGTATAGCCGCTCTCTGTCCAGTCCAGGACCAGTGGGATCAA
GGCGGAGGGTGCAGATGGCGTCCACTCCAGTGGCTGCCCCATGTTTCTCAAGTCTGAGCAA
AGNCAGTCTGCAGCCAGAGTACAGAGGGCCAACACTGGTGCTCTTGAACAGGGACCTGAG
CAGGCCCTGAAGGACCCTCTCCGTGGTGTTGAACTTCCTGGAGCCAGGGTGCTGCATGTTT
TCCTCATACCGCAGGTTGTTGATGGTGAAGTTCAGTGTGAATGGCTCCTCGCTGACCACCC

16502.1.edit

AGCGTGGTTCGCGGCCGAGGTCCACCACACCCAATTCCTTGCTGGTATCATGGCAGCCGCCA
CGTGCCAGGATTACCGGCTACATCATCAAGTATGAGAAGCCTGGGTCTCCTCCCAGAGAA
GTGGTCCCTCGGCCCCGCCCTGGTGTCACAGAGGCTACTATTACTGGCCTGGAACCGGGAA
CCGAATATACAATTTATGTCATTGCCCTGAAGAATAATCAGAAGAGCGAGCCCCCTGATTGG
AAGGAAAAAGACAGACGAGCTTCCCCAACTGGTAACCCCTTCCACACCCCAATCTTCATGG
ACCANANANCTTGATNGTCCTTTACNGGTTNAAAAAACCCTTTTCGCCCCCCCCACCTTG
GGGATTAACCTTGGAAGGAGGGGATTTNACCNTTCC

16502.2.edit

TCGAGCGGCCGCCCCGGGCAGGTCTGTGTCAGAGTGGCACTGGTAGAAGTTCCAGGAACCCCT
GAACTGTAAGGGTTCTTCATCAGTGCCAACAGGATGACATGAAATGATGTACTCAGAAAGT
GTCCTGGAATGGGGCCCATGAGATGGTTGTCTGAGAGAGAGCTTCTTGTCTACATTTCGGC
GGGTATGGTCTTGGCCTATGCCTTATGGGGGTGGCCGTTGTGGGCGGTGTGGTCCGCCTAA
AACCATGTTCTTCAAAGATCATTGTGTTGCCCAACACTGGGTTGCTGACCAGAAGTGCCAGG
AAGCTGAATACCATTTCAGTGTACATCCAGGGNGGGTGACCAAAGGGGGTCNTTTNGA
CCTGGNGAAAGGAACCATCCAAAANCTCTGNCCCATG

16503.1.edit

AGCGTGGNCGCGGCCGAGGTCTGAGGATGTAACTCTTCCCAGGGGAAGGCTGAAGTGCT
GACCATGGTGCTACTGGGTCCTTCTGAGTCAGATATGTGACTGATGNGAACTGAAGTAGGT
ACTGTAGATGGTGAAGTCTGGGTGTCCCTAAATGCTGCATCTCCAGAGCCTTCCATCATT
CCGTTTCTTCTTTTGCTATGGGATGAGACACTGTTGAGTATTCTCTAAAGTCACCACTGAAA
TCTTCCTCCAAAGGAAAACCTGTGGAAAAGCCCCTTATTTCTGCCCCATAATTTGGTTCTCC
TAATCNCTCTGAAATCACTATTTCCCTGGAANGTTTGGGAAAAANNGGGCNACCTGNCAN
TGGAANTGGATANAAAGATCCCACCATTTTACCCAACNAGCAGAAAGTGGGAANGGTAC
CGAAAAGCTCCAAGTAANAAAAAGGAGGGAAGTAAAGGTCAAGTGGGCACCAAGTTTCAA
ACAAAACCTTTCCCCAACTATANAACCCA

16503.2.edit

AAGCGGCCCGCCCGGGCAGGNNCAGNAGTGCCTTCGGGACTGGGNTCACCCCCAGGTCTGC
GGCAGTTGTACAGCGCCAGCCCCGCTGGCCTCCAAAGCATGTGCAGGAGCAAATGGCAC
CGAGATATTCCTTCTGCCACTGTTCTCCTACGTGGTATGTCTTCCCATCATCGTAACACGTT
GCCTCATGAGGGTCACACTTGAATTCCTTTTCCGTTCCCAAGACATGTGCAGCTCATTTG
GCTGGCTCTATAGTTTGGGGAAAGTTTGTGAACTGTGCCACTGACCTTTACTTCCTCCTT
CTCTACTGGAGCTTTCCGTACCTTCCACTTCTGCTGNTGGNAAAAAGGGNGGAACNTCTTA
TCAATTTCAATTGGACAGTANCCCNCTTTCTNCCCAAAACATNCAAGGGAAAATATTGATTN
CNAGAGCGGATTAAGGAACAACCCNAATTATGGGGGCCAGAAATAAAGGGGGCTTTTCCA
CAGGTNTTTTCCT

16504.1.edit

TCGAGCGGCCCGCCCGGGCAGGTCTGCAGGCTATTGTAAGTGTCTGAGCACATATGAGAT
AACCTGGGCCAAGCTATGATGTTGATACGTTAGGTGTATTAATGCACCTTTGACTGCCA
TCTCAGTGGATGACAGCCTTCTCACTGACAGCAGAGATCTTCTCACTGTGCCAGTGGGCA
GGAGAAAGAGCATGCTGCGACTGGACCTCGGCCGCGACCACGCT

16504.2.edit

AGCGTGGTTCGCGGCCGAGGTCCAGTCGCAGCATGCTCTTTCTCCTGCCCACTGGCACAGTG
AGGAAGATCTCTGCTGTCAAGTGAAGGCTGTATCCACTGAGATGGCAGTCAAAAGTGC
ATTTAATACACCTAACGTATCGAACATCATAGCTTGGCCCAGGTTATCTCATATGTGCTCA
GAACACTTACAATAGCCTGCAGACCTGCCCCGGCGGCCGCTCGA

16505.1.edit

CGAGCGGCCGCCCGGGCAGGTCCAGACTCCAATCCAGAGAACCACCAAGCCAGATGTCAG
AAGCTACACCATCACAGTTTACAACCAGGCACTGACTACAAGATCTACCTGTACACCTTG
AATGACAATGCTCGGAGCTCCCCTGTGGTCATCGACGCCTCCACTGCCATTGATGCACCAT
CCAACCTGCGTTTCTTGGCCACCACACCCAATTCCTTGCTGGTATCATGGCAGCCGCCACG
TGCCAGGATTACCGGCTACATCATCAAGTATGAGAAGCCTGGGTCTCCTCCCAGAGAAGT
GGTCCCTCGGCCCCGCCCTGGTGNCACAGAAGCTACTATTACTGGCCTGGAACCGGGAACC
GAATATACAATTTATGTCATTGCCCTGAAGAATAATCANAAGAGCGAGCCCCTGATTGGA
AGG

16505.2.edit

AGCGTGGTCGCGGCCGAGGTCCTGTGTCAGAGTGGCACTGGTAGAAGTTCCAGGAACCCCTGA
ACTGTAAGGGTTCTTCATCAGTGCCAACAGGATGACATGAAATGATGTACTCAGAAGTGTG
CTGGAATGGGGCCCATGAGATGGTTGTCTGAGAGAGAGCTTCTTGTCTGTCTTTTCTCTTC
CAATCAGGGGCTCGCTCTTCTGATTATTCTTCAGGGCAATGACATAAATTGTATATTCGGTT
CCCGGTTCCAGGCCAGTAATAGTAGCCTCTGTGACACCAGGGCGGGGCCGAGGGACCACT
TCTCTGGGAGGAGACCCAGGCTTCTCATACTTGATGATGTANCCGGTAATCCTGGCACCCT
GGCGGCTGCCATGATACCAGCAAGGAATTGGGTGTGGTGGCCAAGAAACGCAGGTTGGAT
GGTGCATCAATGGCAGTGGAGGCGTCGATNACCACAGGGGAGCTCCGANCAATTGTCATTC
AAGGTGGACAGGTAGAATCTTGTAATCAGGTGCCTGGTTTGTAACCTG

16506.1.edit

TCGAGCGGCCGCCCGGGCAGGTTTCGTGACCGTGACCTCGAGGTGGACACCACCCCTCAAG
AGCCTGAGCCAGCAGATCGAGAACATCCGGAGCCCAGAGGGCAGCCGCAAGAACCCCGC
CCGCACCTGCCGTGACCTCAAGATGTGCCACTCTGACTGGAAGAGTGGAGAGTACTGGAT
TGACCCCAACCAAGGCTGCAACCTGGATGCCATCAAAGTCTTCTGCAACATGGAGACTGGT
GAGACCTGCGTGTACCCCACTCAGCCCAGTGTGGCCCAAGAACTGGTACATCAGCAAG
AACCCCAAGGACAAGAAGCATGTCTGGTTCGGCGAAAGCATGACCGATGGATTCCAGTTC
GAGTATGGCGGCCAGGGCTCCGACCCTGCCGATGTGGACCTCGGCCGCGACCACGCTAAG
CCCGAATTCCAGCACACTGGCGGCCGTTACTAGTGGGATCCGAGCTTCGGTACCAAGCTTG
GCGTAATCATGGGNCATAGCTGTTTCTGNGTGAAAATGGTATTCCGCTTCACAAATTCCC
AC

16506.2.edit

AGCGTGGTCGCGGCCGAGGTCCACATCGGCAGGGTCCGAGCCCTGGCCGCCATACTCGAA
CTGGAATCCATCGGTGATGCTCTCGCCGAACCAGACATGCCTCTTGTCTTGGGGTTCTTGC
TGATGTACCAAGTTCTTCTGGGCCACACTGGGCTGAGTGGGGTACACGCAGGTCTCACCAGT
CTCCATGTTGCAGAAGACTTTGATGGCATCCAGGTTGCAGCCTTGGTTGGGGTCAATCCAG
TACTCTCCACTCTTCCAGTCAGAGTGGCACATCTTGAGGTACGGCAGGTGCGGGCGGGGT
TCTTGCGGCTGCCCTCTGGGCTCCGGATGTTCTCGATCTGCTGGCTCAAGCTCTTGAAGGT
GGTGTCCACCTCGAGGTACGGTCACGAAACCTGCCCCGGCGCCGCTCGA

16507.1.edit

AGCGTGGTCGCGGCCGAGGTCAAGAACCCCGCCCGCACCTGCCGTGACCTCAAGATGTGC
CACTCTGACTGGAAGAGTGGAGAGTACTGGATTGACCCCAACCAAGGCTGCAACCTGGAT
GCCATCAAAGTCTTCTGCAACATGGAGACTGGTGAGACCTGCGTGTACCCCACTCAGCCCA
GTGTGGCCCAAGAAGTGGTACATCAGCAAGAACCCCAAGGACAAGAGGCATGTCTGGT
TCGGCGAGAGCATGACCGATGGATTCCAGTTCGAGTATGGCGGCCAGGGCTCCGACCCTG
CCGATGTGGACCTGCCCGNGCCGNGCCGCTCGAAAAGCCCNAAATTTCCAGNCACACTTGG
CCGGCCGTTACTACTG

16507.2.edit

TCGAGCGGCCCGCCCGGGCAGGTCCACATCGGCAGGGTCGGAGCCCTGGCCGCCATACTCG
AACTGGAATCCATCGGTCATGCTCTCGCCGAACCAGACATGCCTCTTGCTCTTGGGGTTCT
TGCTGATGTACCAGTTCTTCTGGGCCACACTGGGCTGAGTGGGGTACACGCAGGTCTCACC
AGTCTCCATGTTGCAGAAGACTTTGATGGCATCCAGGTTGCAGCCTTGGTTGGGGTCAATC
CAGTACTCTCCACTCTTCCAGTCAGAGTGGCACATCTTGAGGTACGGCAGGTGCGGGCGG
GGTTCTTGACCTCGGCCGCGACCACGCT

16508.1.edit

CGAGCGGCCCGCCCGGGCAGGTCCCCCCCCCTTTTTTTTTTTTTTTTTTTTTTTTTTTTTT
TTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTT

16508.2.edit

AGCGTGGTCGCGGCCGAGGTCTGGCATTCCCTTCGACTTCTCTCCAGCCGAGCTTCCCAGAA
CATCACATATCACTGCAAAAATAGCATTGCATACATGGATCAGGCCAGTGGAAATGTAAA
GAAGGCCCTGAAGCTGATGGGGTCAAAATGAAGGTGAATTCAAGGCTGAAGGAAATAGCA
AATTCACCTACACAGTTCTGGAGGATGGTTGCACGAAACACACTGGGGAATGGAGCAAAA
CAGTCTTTGAATATCGAACACGCAAGGCTGTGAGACTACCTATTGTAGATATTGCACCCTA
TGACATTGGTGGTCCTGATCAAGAATTTGGTGTGGACGTTGGCCCTGTTGCTTTTTATAAA
CCAAACTCTATCTGAAATCCCAACAAAAAAATTTAACTCCATATGTGNTCCTCTTGTCT
AATCTTGGCAACCAGTGCAAGTGACCGACAAAATTCAGTTATTTATTTCCAAAATGTTTG
GAAACAGTATAATTTGACAAAGAAAAAAGGATACTTCTCTTTTTTTGGCTGGTCCACAAA
TACAATTCAAAAGGCTTTTGGTTTTATTTTTTTANCCAATTCCAATTTCAAAATGTCTCAA
TGGNGCTTATAATAAAATAAACTTTCACCCTTNTTTTNTGAT

16509.1.edit

AGCGTGGTCGCGGCCGAGGTCTGGGATGCTCCTGCTGTACAGTGAGATATTACAGGATC
ACTTACGGAGAAACAGGAGGAAATAGCCCTGTCCAGGAGTTCACTGTGCCTGGGAGCAAG
TCTACAGCTACCATCAGCGGCCTTAAACCTGGAGTTGATTATACCATCACTGTGTATGCTG
TCACTGGCCGTGGAGACAGCCCCGCAAGCAGCAAGCCAATTTCCATTAATTACCGAACAG
AAATTGACAAACCATCCCAGATGCAAGTGACCGATGTTTACAGACAACAGCATTAGTGTC
AGTGGCTGCCTTCAAGTTCCCCTGTTACTGGTTACAGAAGTAACCACCACTCCCCAAAATG
GACCAGGACCAACAAAACTAAACTGCAGGTCCAGATCAAACAGAAAATGGACTATTG
AAGGCTTGACGCCACAGTGGAAGTATGTGGNTAGGNGTCTATGCTCAGAATCCCAAGCC
GGAGAAAGTCAGCCTTCTGGTTTAGACTGCAGTAACCAACATTGATCGCCCTAAAGGACT
GGNCATTCACTTGGATGGTGGATGTCCAATTC

16509.2.edit

TCGAGCGGCCCGCCCGGGCAGGTCCTTGAGCTCTGCAGNGTCTTCTTCACCATCAGGTGCA
GGGAATAGCTCATGGATTCCATCCTCAGGGCTCGAGTAGGTACCCCTGTACCTGGAAACTT
GCCCCTGTGGGCTTTCCCAAGCAATTTTGATGGAATCGACATCCACATCAGNGAATGCCAG
TCCTTTAGGGCGATCAATGTTGGTTACTGCAGTCTGAACCAGAGGCTGACTCTCTCCGCTT
GGATTCTGAGCATAGACACTAACCACATACTCCACTGTGGGCTGCAAGCCTTCAATAGTCA
TTTCTGTTTGATCTGGACCTGCAGTTTTAAGTTTTTGGTGGTCTGNCCATTTTTGGGAAG
TGGGGGGTTACTCTGTAACCAGTAACAGGGGAACTGAAGGCAGCCACTTGACACTAATG
CTGTTGTCCTGAACATCGGTCACTTGCATCTGGGGATGGTTTTGACAATTTCTGGTTCGGCA
AATTAATGAAAATTGGCTTGCTGCTTGGCGGGGCTGNCTCCACGGGCCAGTGACAGCATA
C

16510.1.edit

TCGAGCGGCCCGCCCGGGCAGGTCCTTGAGCTCTGCAGTGTCTTCTTCACCATCAGGTGCA
GGGAATAGCTCATGGATTCCATCCTCAGGGCTCGAGTAGGTACCCCTGTACCTGGAAACTT
GCCCCTGTGGGCTTTCCCAAGCAATTTTGATGGAATCGACATCCACATCAGTGAATGCCAG
TCCTTTAGGGCGATCAATGTTGGTTACTGCAGTCTGAACCAGAGGCTGACTCTCTCCGCTT
GGATTCTGAGCATAGACACTAACCACATACTCCACTGTGGGCTGCAAGCCTTCAATAGTCA
TTTCTGTTTGATCTGGACCTGCAGTTTTAAGTTTTTGTGGNCTGNCCATTTTTGGGGAA
GGGGTGGTTACTCTTGTAACCAGTAACAGGGGAACTGAAGCAGCCACTTGACACTAATG
CTGGTGGCCTGAACATCGGTCACTTGCATCTGGGATGGTTTGGTCAATTTCTGTTCCGGTAAT
TAATGGGAAATTGGCTTACTGGCTTGCGGGGGCTGTCTCCACGGNCAGTGACAAGCATAC
ACAGNGATGGGTATAATCAACTCCAGGTTTAAGGCCNCTGATGGTA

16510.2.edit

AGCGTGGTCGCGGCCGAGGTCTGGGATGCTCCTGCTGTACAGTGAGATATTACAGGATC
ACTTACGGAGAAACAGGAGGAAATAGCCCTGTCCAGGAGTTCACTGTGCCTGGGAGCAAG
TCTACAGCTACCATCAGCGGCCTTAAACCTGGAGTTGATTATACCATCACTGTGTATGCTG
TCACTGGCCGTGGAGACAGCCCCGCAAGCAGTAAGCCAATTTCCATTAATTACCGAACAG
AAATTGACAAACCATCCCAGATGCAAGTGACCGATGTTTACAGACAACAGCATTAGTGTC
AGTGGCTGCCTTCAAGTTCCCCTGTTACTGGTTACAGAGTAACCACCACTCCCCAAAATGG
GACCAGGACCAACAAAACTAAACTGCANGGTCCAGATCAAACAGAAAATGACTATTG
AAGGCTTGACGCCACAGTGGAAGTATGTGGGTTAGTGCTATGCTCAGAATNCCAAGCGG
AGAGAGTCAGCCTCTGGTTCAGACT

FIG. 15UU

16511.1.edit

TCGAGCGGCCCGCCCGGGCAGGTCAGCGCTCTCAGGACGTACCAACCATGGCCTGGGCTCT
GCTCCTCCTCACCCTCCTCACTCAGGGCACAGGGTCTGGGCCAGTCTGCCCTGACTCAG
CCTCCCTCCGCGTCCGGGTCTCCTGGACAGTCAGTCACCATCTCCTGCACTGGAACCAAGCA
GTGACGTTGGTGCTTATGAATTTGTCTCCTGGTACCAACAACACCCAGGCAAGGCCCCCAA
ACTCATGATTTCTGAGGTCACTAAGCGGCCCTCAGGGGTCCCTGATCGCTTCTCTGGCTCC
AAGTCTGGCAACACGGCCTCCCTGACCGTCTCTGGGCTCCANGCTGAGGATGANGCTGATT
ATTACTGGAAGCTCATATGCAGGCAACAACAATTGGGTGTTTCGGCGGAAGGGACCAAGCT
GACCGTNTAAGGTCAAGCCCAAGGCTTGCCCCCTCGGTCACTCTGTTCCCAACCTCCTCT
GAAGAAGCTTTCAAGCCAACAANGNCACACTGGGTGTGTCTCATAAGTGGACTTTCTACCC

16511.2.edit

AGCGTGGTCGCGGCCGAGGTCTGTAGTTTCTGTGGGACTTCCACTGCTCAGGCGTCAGGCT
CAGGTAGCTGCTGGCCGCGTACTTGTGTTGCTTTGNTTGGAGGGTGTGGTGGTCTCCACT
CCCGCCTTGACGGGGCTGCTATCTGCCCTCCAGGCCACTGTCACGGCTCCCGGGTAGAAGT
CACTTATGAGACACACCAAGTGTGGCCTTGTGGCTTGAAGCTCCTCAGAGGAGGGTGGGA
ACAGAGTGACCGAGGGGGCAGCCTTGGGCTGACCTAGGACGGTCAGCTTGGTCCCTCCGC
CGAACACCCAATTGTTGTTGCCTGCATATGAGCTGCAGTAATAATCAGCCTCATCCTCAGC
CTGGAGCCCAAGAGACNGTCAAGGGAGGCCCGTGTGTTGCCAAGACTTGGAAGCCAGANAAG
CGATCAGGGACCCCTGAGGGCCGCTTTACNGACCTCAAAAAATCATGAATTTGGGGGGCC
TTTGCCTGGGNGTTGGTTGGTNACCAGNAAAACAAAATTCATAAAGCACCAACGTCACT
GCTGGTTTCCAGTGCANGAANATGGTGAACCTGAANTGTCC

16512.1.edit

AGCGTGGTCGCGGCCGAGGTCCAGCATCAGGAGCCCCGCCTTGCCGGCTCTGGTCATCGCC
TTTCTTTTTGTGGCCTGAAACGATGTCATCAATTCGCAGTAGCAGAACTGCCGTCTCCACTG
CTGTCTTATAAGTCTGCAGCTTCACAGCCAATGGCTCCCATATGCCAGTTCTTTCATGTCC
ACCAAAGTACCCGTCTCACCATTTACACCCCAGGTCTCAGATTCTCCTGGGTGTGCTTGG
CCCGAAGGGAGGTAAGTANACGGATGGTGTGTTCCACAGTTCTGGATCAGGGTACGAG
GAATGACCTCTAGGGCCTGGGCNACAAGCCCTGTATGGACCTGCCCGGGCGGGCCCCGCTC
GA

16512.2.edit

TCGAGCGGCCCGCCCGGGCAGGTCCATACAGGGCTGTTGCCAGGCCCTAGAGGNCATTCC
TTGTACCCTGATCCAGAACTGTGGGACCAGCACCATCCGTCTACTTACCTCCCTTCGGGCC
AAGCACACCCAGGAGAACTGTGAGACCTGGGGTGTAATGGNGAGACGGGTACTTTGGTG
GACATGAAGGAACTGGGCATATGGGAGCCATTGGCTGNGAAGCTGCANACTTATAAGACA
GCAGTGGAGACGGCAGTTCTGCTACTGCGAATTGATGACATCGTTTCAGGCCACAAAAAG
AAAGGCGATGACCANAGCCGGCAAGGCGGGCTTCCTGATGCTGGACCTCGGCCGCCGAC
CACGCTT

16514.1.edit

AGCGTGGTCGCGGCCGAGGTCCACTAGAGGTCTGTGTGCCATTGCCCAGGCAGAGTCTCTG
CGTTACAACTCCTAGGAGGGCTTGCTGTGCGGAGGGCCTGCTATGGTGTGCTGCGGTTCA
TCATGGAGAGTGGGGCCAAAGGCTGCGAGGTGTGGTGTCTGGGAACTCCGAGGACAGA
GGGCTAAATCCATGAAGTTTGTGGATGGCCTGATGATCCACAGCGGAGACCCTGTAACTA
CTACGTTGACACTGCTGTGCGCCACGTGTTGCTCANACAGGGTGTGCTGGGCATCAAGGTG
AAGATCATGCTGCCCTGGGACCCANCTGGCAAAAATGGCCCTTAAAAACCCCTTGCCNTG
ACCACGTGAACCATTTGTGNGAACCCCAAGATGAANATACTTGCCCACCACCCCCATT

16514.2.edit

TCGAGCGGCCGCCCCGGGCAGGTCTGCCAAGGAGACCCTGTTATGCTGTGGGGACTGGCTG
GGGCATGGCAGGCGGCTCTGGCTTCCCACCCTTCTGTTCTGAGATGGGGGTGGTGGGCAGT
ATCTCATCTTTGGGTCCACAATGCTCACGTGGTCAGGCAGGGGCTTCTTAGGGCCAATCT
TACCAGTTGGGTCCCAGGGCAGCATGATCTTCACCTTGATGCCCAGCACACCCTGTCTGAG
CAACACGTGGCGCACAGCAGTGTCAACGTAGTAGTTAACAGGGTCTCCGCTGTGGATCAT
CAGGCCATCCACAACTTCATGGATTTAGCCCTCTGTCCTCGGAGTTTCCCAAAACACCAC
AACCTCGCCAGCCTTTGGGCCCCACTTCTTCATGAATGAAACCGCAGCACACCATTANCA
GGCCCTTCCGCACAGGNAAGCCCTTCCTAAGGAGTTTGTAAACGCAAAAAACTCTTGCC
GGGGCAATGGGCACACAGACCTNTANTNGGACCTTGGNCCGCGAACCAACCGCTT

16515.1.edit

AGCGTGGTCGCGGCCGAGGTCTGGCCCTCCTGGCAAGGCTGGTGAAGATGGTCACCCTGG
AAAACCCGGACGACCTGGTGAGAGAGGAGTTGTTGGACCACAGGGTGCTCGTGGTTTCCC
TGGAACCTCCTGGACTTCCTGGCTTCAAAGGCATTAGGGGACACAATGGTCTGGATGGATTG
AAGGGACAGCCCGGTGCTCCTGGTGTGAAGGGTGAACCTGGNGCCCCTGGTGAAAATGGA
ACTCCAGGTCAAACAGGAGCCCGNGGGCTTCCTGGNGAGAGAGGACGTGTTGGTGGCCCT
GGCCCANACCTGCCCCGGCGGGCCGCTCNAAGCCGAAATCCAGNACACTGGCGGCCGNT
ACTANTGGAATCCGAACCTTCGGTACCAAAGCTTGGCCGTAATCATGGCCATAGCTTGTTCC
CTGGGGNGGAAATTGGTATTCCGCTNCCAATTCCACACAACATACCGAACCCGGAAAGCA
TTAAAGTGTAAGCCCTGGGGGGGCCTAAATGANGTGAGCNTAACTCNCATTTAATTGG
CGTTGCGCTTCACTGCCCCGCTTTTCCAGTCCGGGNA

16515.2.edit

TCGAGCGGCCGCCCCGGGCAGGTCTGGGCCAGGGGCACCAACACGTCCTCTCTACCAGGA
AGCCACGGGCTCCTGTTTGACCTGGAGTTCCATTTTCACCAGGGGCACCAGGTTACCCCT
TCACACCAGGAGCACCAGGCTGTCCCTTCAATCCATCCAGACCATTGTGNCCCCTAATGCC
TTTGAAGCCAGGAAGTCCAGGAGTTCCAGGGAAACCACGAGCACCCTGTGGTCCAACAAC
TCCTCTCTACCAGGTCGTCCGGGTTTTCAGGGTGACCATCTTCACCAGCCTTGCCAGGA
GGGCCAGACCTCGGCCGCGACCACGCT

16516.1.edit

ANCGTGGTCGCGGCCGAGGTCTCACCAGAGGTGNCACCTACAACATCATAGTGGAGGCA
CTGAAAGACCANCAGAGGCATAAGGTTTCGGGAAGAGG

16516.2.edit

TCGAGCGGCCCGCCCGGGCAGGTCCATTTTCTCCCTGACGGTCCCACTTCTCTCCAATCTTGT
AGTTCACACCATTGTCATGGCACCATCTAGATGAATCACATCTGAAATGACCACTTCCAAA
GCCTAAGCACTGGCACAACAGTTTAAAGCCTGATTCAGACATTCGTTCCCACTCATCTCCA
ACGGCATAATGGGAAACTGTGTAGGGGTCAAAGCACGAGTCATCCGTAGGTTGGTTCAAG
CCTTCGTTGACAGAGTTGTCCACGGTAACAACCTCTTCCCGAACCTTATGCCTCTGCTGGTC
TTTCAGTGCCTCCACTATGATGTTGTAGGTGGCACCTCTGGTGAGGACCTCNGNCCNGAAC
AACGCTTAAGCCCGNATTCTGCAGAATAATCCCATCACACTTGGCGGCCGCTTCGANCATG
CATCNTAAAAGGGGGCCCCAATTTCCCCCTTATAAGNGAANCCGTATTNCCAATTTCACTG
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16517.1.edit

ANCGNGGTCGCGGCCGANGTNTTTTTTCTTNTTTTTT

16518.1.edit

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CCCCNTCGAAAAAACCAATTTCCAAAGCCAAAGGGCAGCCCCGAGAACCACAGGTGTACAC
CCTGCCCCCATCCCGGGAGGAAAAGANCAANAACCNGGTTCAGCCTTAACTTGCTTGGTC
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16518.2.edit

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CAGGCAGGTCAAGGTGACCTGGTTCTTGGTCATCTCCTCCCGGATGGGGGCAGGGTGAA
CACCTGGGGTTCTCGGGGCTTGCCCTTTGGTTTGAANATGGTTTTCTCGATGGGGGCTGG
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CGGNGAGGACNCTNACCACACGGAACCGGGCTGGTGGACTGCTCC

16519.1.edit

AGCGTGGTCGCGGACGANGTCCTGTGTCAGAGTGGNACTGGTAGAAGTTCCANGAACCCCTGA
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16519.2.edit

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16520.1.edit

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16520.2.edit

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16521.2.edit

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16522.1.edit

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16522.2.edit

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16523.1.edit

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16523.2.edit

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GTTCTTGACCT

16524.1.edit

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CCACCTGG

16524.2.edit

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16526.1.edit

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16526.2.edit

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16527.1.edit

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TT

16527.2.edit

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FIG. 15A4A

16528.1.edit

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AGTGGTCCCTCGGCCCCGCCCTGGTGTCACAGAGGCTACTATTACTGGCCTGGAACCGGA
ACCGAATATACAATTTATGTCATTGCCCTGAAG

16528.2.edit

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GCAGAATCGAAAACATTGGAACCCAAGAAGGGCAAGCCCGCAAAGAAACCCCGCCCGC
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16529.2.edit

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16530.2.edit

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16531.1.edit

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16531.2.edit

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16532.1.edit

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03_16535.1.edit

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04_16535.2.edit

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05_16536.1.edit

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CAGAGGGCCAACACTGGTGTCTTGAACAAGGGCTTGAGCAGACCCTGCAGAACCTCTTC
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07_16537.1.edit

AGCGTGGTCGCGGCCGAGGTCCACATCGGCAGGGTCGGAGCCCTGGCCGCCATACTCGAA
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GTA CTCTCCACTCTTCCAGTCAGAAAGTGGGCACATCTTGAGGTCACCGGCAGGTGCCGGGC
CGGGGGTTCTTGCGGCTTGCCCTCTGGGCTCCGGATGTTCTCGATCTGCTTGGCTCAGGCTC
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08_16537.2.edit

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ACCACCGCT

FIG. 15EEE

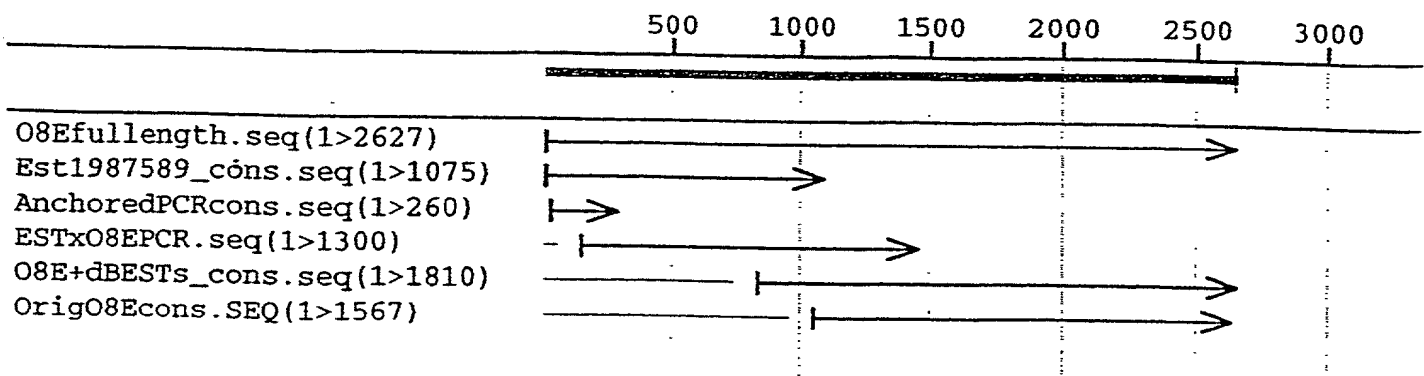
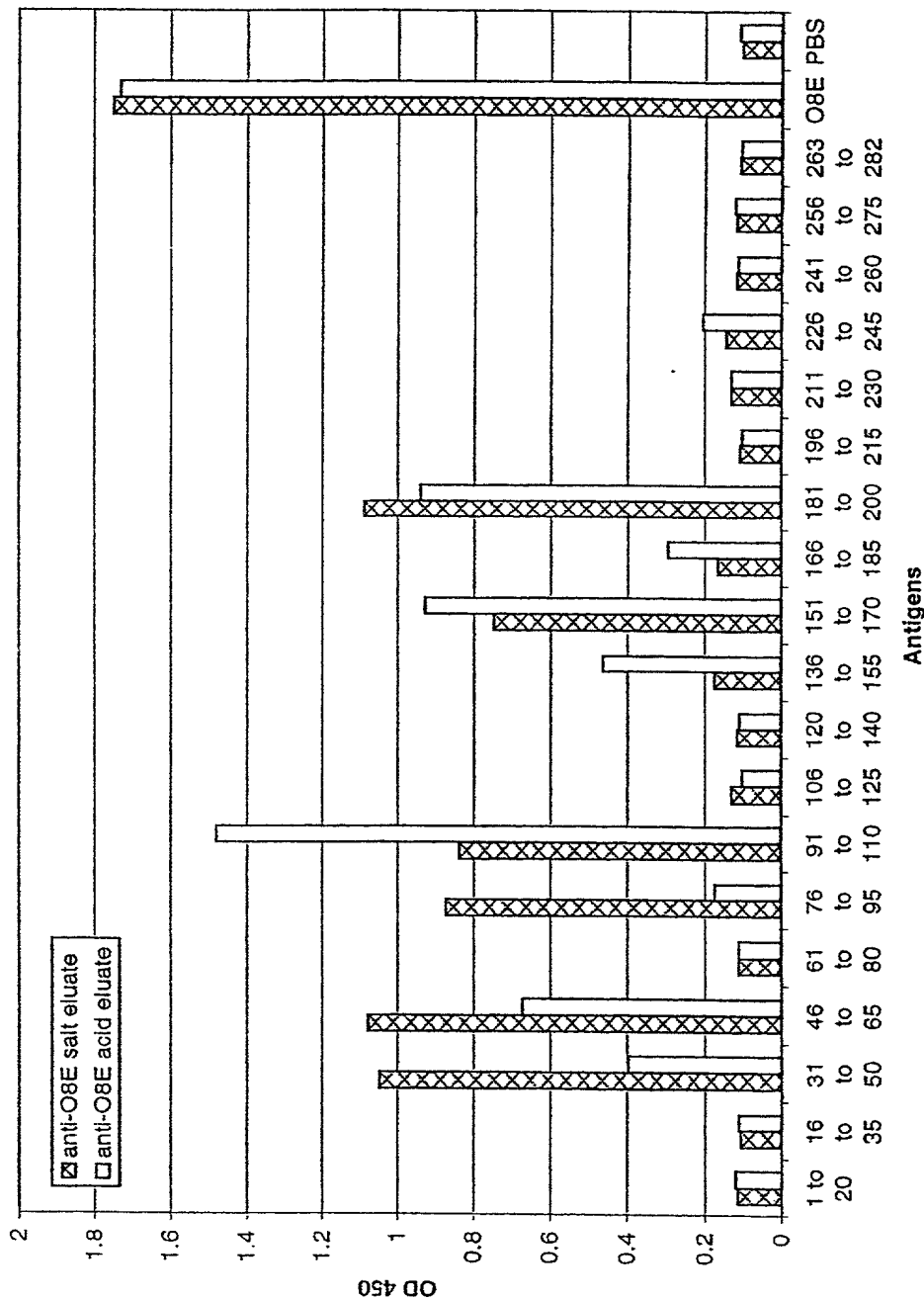


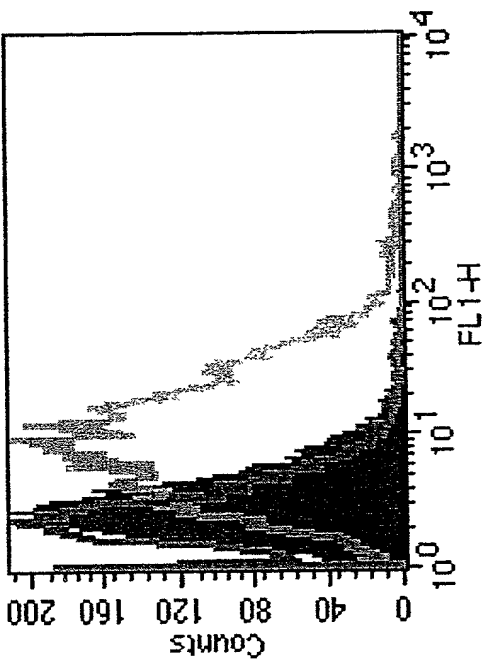
Fig. 16

Fig. 17

O8E Epitope Mapping



O8E Surface Expression



- B305D/HEK stained with anti -O8E antibody
- ▨ O8E/HEK stained with anti -O8E antibody
- O8E/HEK stained with an irrelevant antibody

Fig. 18

Surface expression of O8E

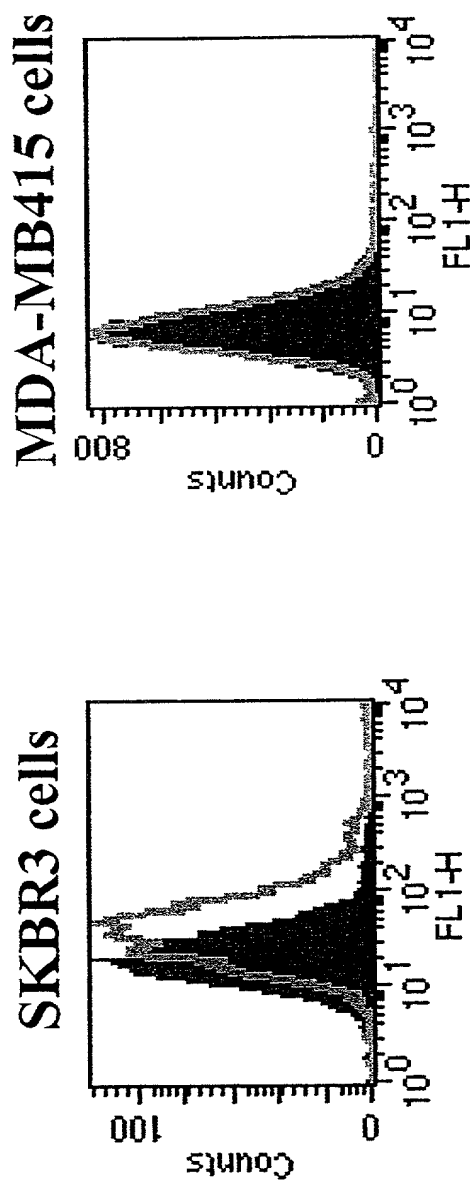
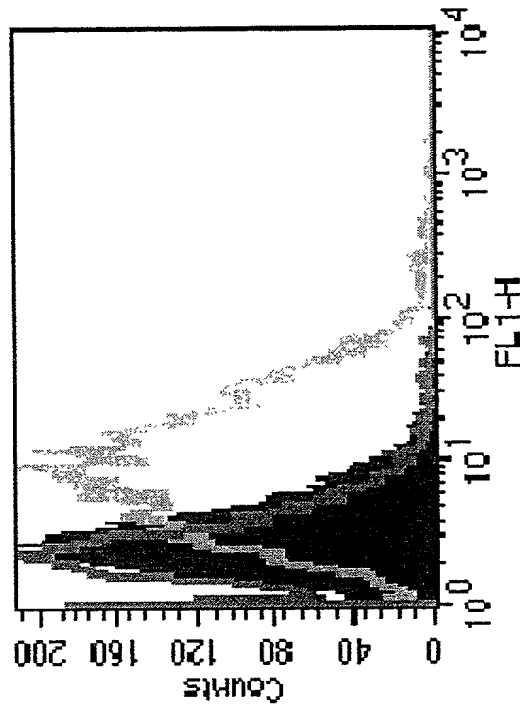


Fig. 19

Blue; irrelevant antibody
Green; anti-O8E antibody

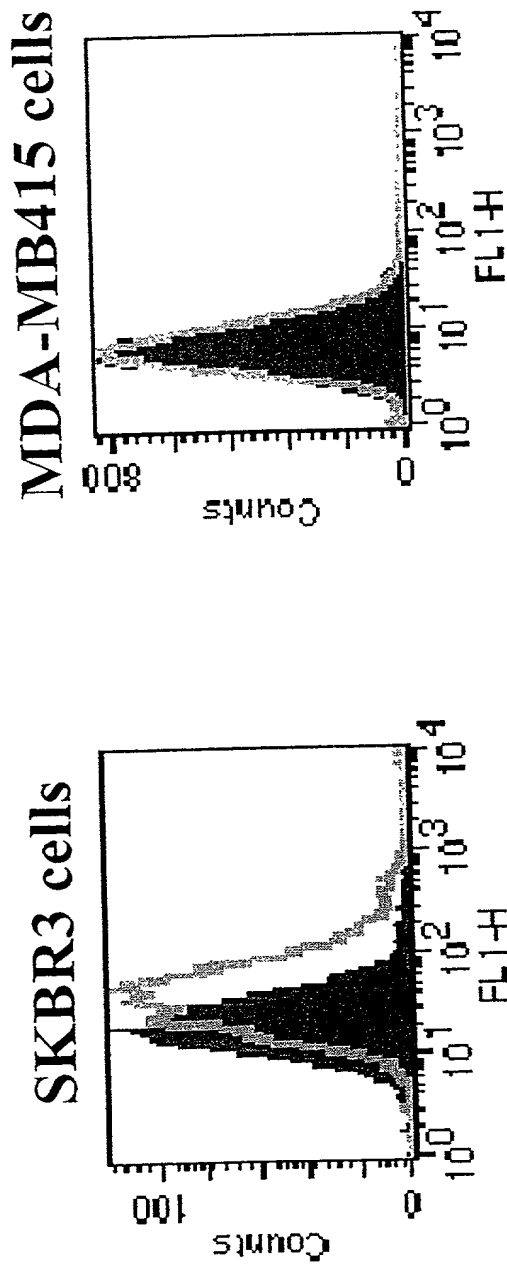
O8E Surface Expression



B305D/HEK stained with anti -O8E antibody
O8E/HEK stained with anti -O8E antibody
O8E/HEK stained with an irrelevant antibody

FIGURE 20

Surface expression of 08E



Black: Irrelevant antibody
Light Grey: Anti-08E antibody

Figure 21

O8E expression in HEK293 Cells

(probed with anti-O8E rabbit polyclonal sera #2333L)

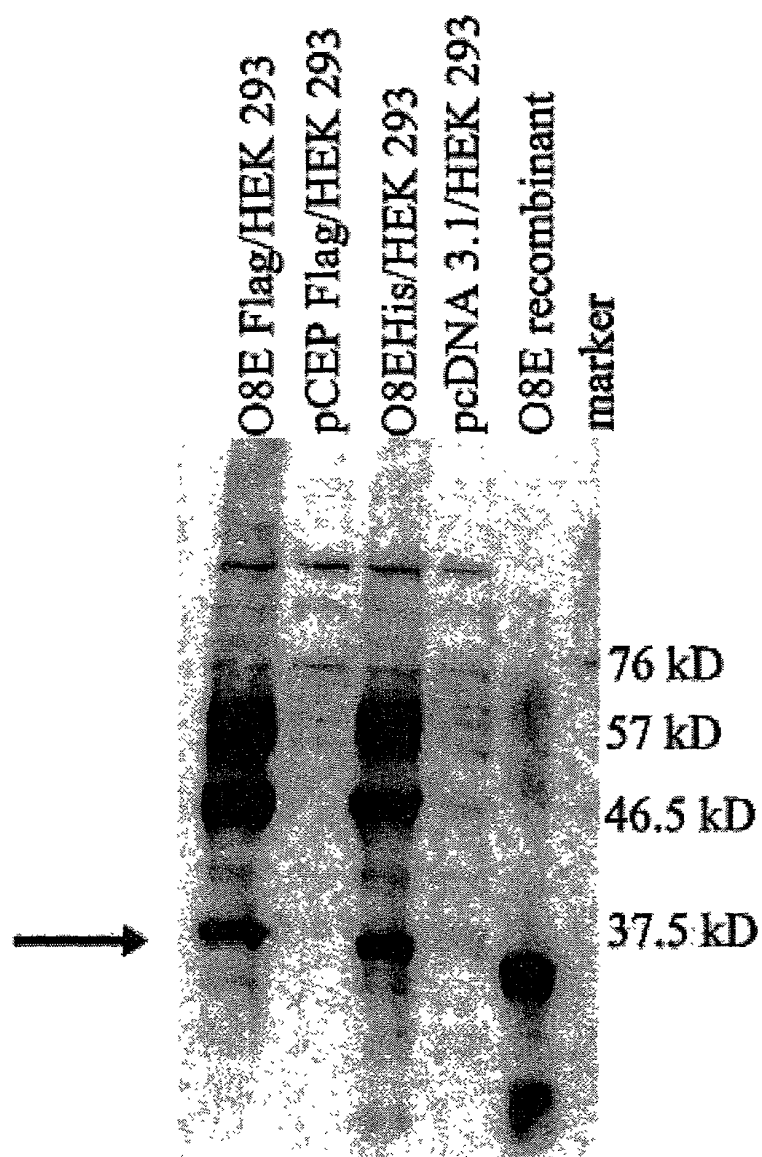


FIGURE 22

Year	Country	Population (millions)	Urban population (millions)	Urban population (%)
1950	India	366	100	27.3
1955	India	385	115	29.9
1960	India	404	130	32.2
1965	India	423	145	34.3
1970	India	442	160	36.2
1975	India	461	175	38.0
1980	India	480	190	39.6
1985	India	499	205	41.1
1990	India	518	220	42.5
1995	India	537	235	43.8
2000	India	556	250	45.0
2005	India	575	265	46.1
2010	India	594	280	47.2
2015	India	613	295	48.1
2020	India	632	310	49.1
2025	India	651	325	50.0
2030	India	670	340	50.8
2035	India	689	355	51.6
2040	India	708	370	52.3
2045	India	727	385	53.0
2050	India	746	400	53.7
2055	India	765	415	54.3
2060	India	784	430	54.9
2065	India	803	445	55.5
2070	India	822	460	56.1
2075	India	841	475	56.6
2080	India	860	490	57.1
2085	India	879	505	57.6
2090	India	898	520	58.0
2095	India	917	535	58.4
2100	India	936	550	58.9

O8E Rabbits 01212000

Date: 1/21/99

Antigen on Plate	Sera Sample	Antibody Dilutions											
		1:1000	1:2000	1:4000	1:8000	1:16000	1:32000	1:64000	1:128000	1:256000	1:512000	1:1024000	1:2048000
O8E (#632-24)	Preammune sera (#2576L):1/1/10/99	0.13	0.09	0.08	0.07	0.07	0.07	0.07	0.06	0.07	0.07	0.07	0.07
		0.10	0.08	0.07	0.07	0.07	0.07	0.07	0.06	0.06	0.07	0.06	0.07
	Average	0.11	0.08	0.07	0.07	0.07	0.07	0.07	0.06	0.07	0.07	0.06	0.07
	α-O8E (#2576K): 1/1/1/2000	2.92	2.81	2.74	2.70	2.58	2.08	1.61	1.01	0.68	0.40	0.24	0.15
		2.93	2.77	2.74	2.69	2.48	2.08	1.57	1.00	0.66	0.40	0.23	0.16
	Average	2.93	2.79	2.74	2.69	2.53	2.08	1.59	1.00	0.67	0.40	0.23	0.16
	Preammune sera (#2333L):1/1/10/99	0.09	0.07	0.06	0.06	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07
		0.08	0.07	0.06	0.07	0.10	0.07	0.07	0.07	0.07	0.07	0.07	0.07
	Average	0.08	0.07	0.06	0.06	0.08	0.07	0.07	0.07	0.07	0.07	0.07	
	α-O8E (#2333L): 1/1/1/2000	2.73	2.75	2.64	2.48	2.30	1.78	1.41	0.92	0.58	0.32	0.20	0.14
		2.73	2.76	2.51	2.60	2.37	1.93	1.44	0.88	0.58	0.35	0.20	0.14
	Average	2.73	2.76	2.57	2.54	2.33	1.85	1.43	0.90	0.58	0.33	0.20	0.14

99

FIGURE 23

Year	Country	Population (millions)	Urban population (millions)	Urban population (%)
1950	France	40.0	20.0	50.0
1955	France	42.0	21.0	50.0
1960	France	44.0	22.0	50.0
1965	France	46.0	23.0	50.0
1970	France	48.0	24.0	50.0
1975	France	50.0	25.0	50.0
1980	France	52.0	26.0	50.0
1985	France	54.0	27.0	50.0
1990	France	56.0	28.0	50.0
1995	France	58.0	29.0	50.0
2000	France	60.0	30.0	50.0
2005	France	62.0	31.0	50.0
2010	France	64.0	32.0	50.0
2015	France	66.0	33.0	50.0
2020	France	68.0	34.0	50.0
2025	France	70.0	35.0	50.0
2030	France	72.0	36.0	50.0
2035	France	74.0	37.0	50.0
2040	France	76.0	38.0	50.0
2045	France	78.0	39.0	50.0
2050	France	80.0	40.0	50.0
2055	France	82.0	41.0	50.0
2060	France	84.0	42.0	50.0
2065	France	86.0	43.0	50.0
2070	France	88.0	44.0	50.0
2075	France	90.0	45.0	50.0
2080	France	92.0	46.0	50.0
2085	France	94.0	47.0	50.0
2090	France	96.0	48.0	50.0
2095	France	98.0	49.0	50.0
2100	France	100.0	50.0	50.0

affi-pure O8E #2576L 739.87A&B

Date: 5/2/2000	
Antibody Name	OGE polyclonal
Rabbit #, Bleed Date	2576/L, 1/11/2000
Purification Method	affinity
Buffer	PBS
Notebook	#705, p150
Lot #	739.87A
Antibody Concentration	1.4mg/ml
Initial Amount	18mg
	739.87B
	1.7mg/ml
	3mg

Antigen on Plate	Sera Sample	Antibody Dilutions											
		1:1000	1:2000	1:4000	1:8000	1:16000	1:32000	1:64000	1:128000	1:256000	1:512000	1:1024000	1:2048000
O8E #632-24	preimmune sera (2576L)	0.15	0.11	0.09	0.08	0.08	0.07	0.07	0.07	0.07	0.08	0.07	0.08
		0.14	0.10	0.09	0.08	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07
	Average	0.14	0.10	0.09	0.08	0.07	0.07	0.07	0.07	0.07	0.08	0.07	0.08
	α -O8E (2576L): 2/8/2000	2.74	2.71	2.63	2.49	2.29	1.87	1.39	0.92	0.57	0.33	0.20	0.14
		2.72	2.68	2.64	2.47	2.26	1.93	1.42	0.94	0.57	0.34	0.21	0.14
	Average	2.73	2.70	2.63	2.48	2.27	1.90	1.41	0.93	0.57	0.34	0.21	0.14
O8E #632-24	affinity pure α -O8E poly salt peak 739-87A	2.89	2.60	2.50	2.21	1.83	1.34	0.99	0.64	0.38	0.22	0.15	0.11
		2.59	2.48	2.38	2.21	1.82	1.33	1.00	0.62	0.37	0.22	0.14	0.11
	Average	2.64	2.54	2.44	2.21	1.83	1.34	1.00	0.63	0.37	0.22	0.15	0.11
	affinity pure α -O8E poly acid peak 739-87B	2.46	2.39	2.40	2.34	2.08	1.73	1.29	0.81	0.48	0.29	0.19	0.13
		2.65	2.66	2.61	2.45	2.14	1.76	1.30	0.82	0.48	0.29	0.19	0.13
	Average	2.56	2.53	2.51	2.39	2.11	1.74	1.30	0.81	0.49	0.29	0.19	0.13

FIGURE 24

Anti-O8E mAb Binding to O8E Amino Acids

61-80 Induces Ligand Internalization

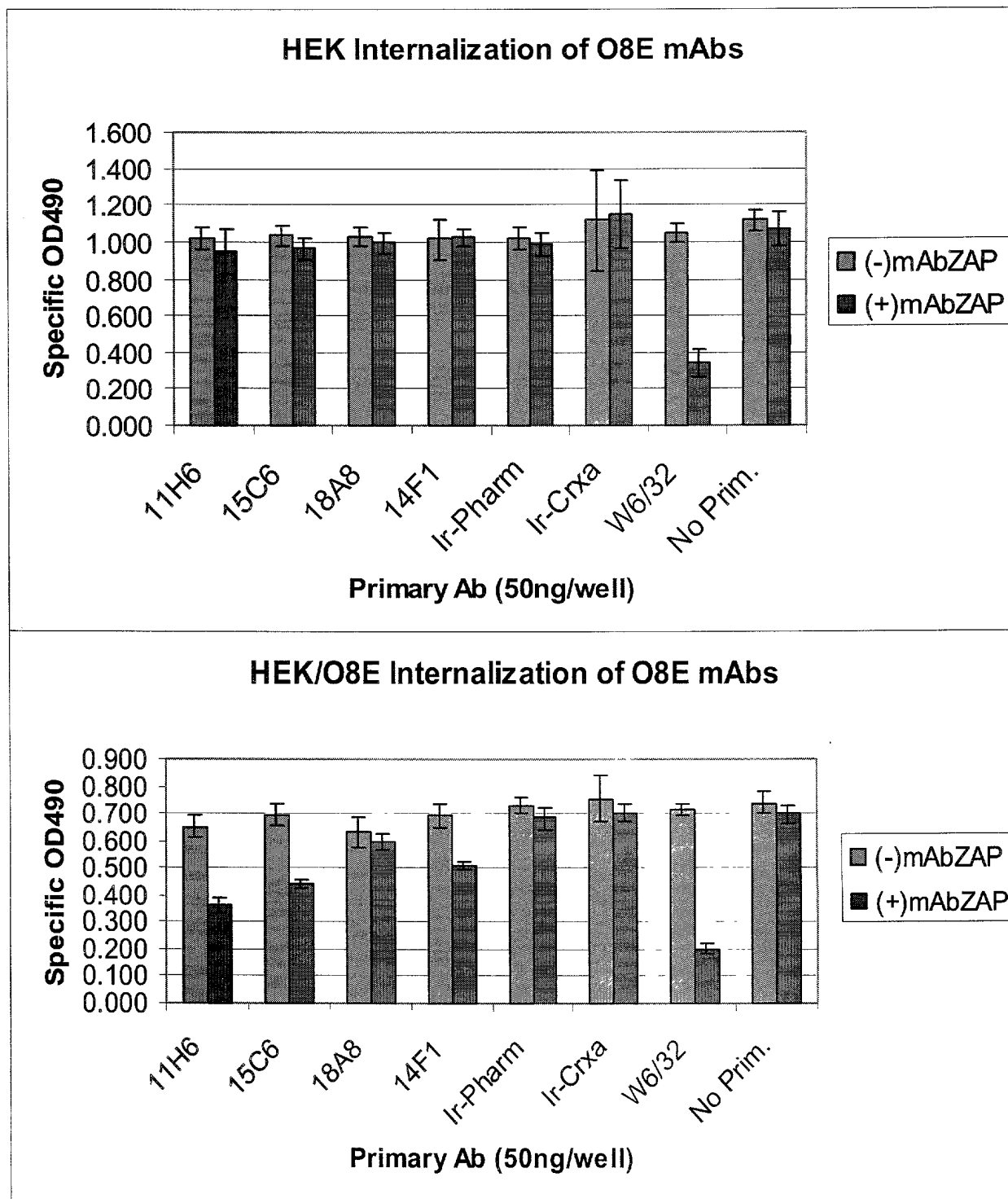


Figure 25